Government of Pakistan
Ministry of National Health Services,
Regulations & Coordination

Trend Analysis of the
UHC Service Coverage Index (UHC Index)
at National and Provincial/ Area Level in
Pakistan

Based on WHO and WB methodology
(with preliminary results for 2021)

MOVING TOGETHER
TO BUILD A HEALTHIER PAKISTAN

UNIVERSAL HEALTH COVERAGE

Trend Analysis of the UHC Index at National and Provincial/ Area Level

Pakistan is committed to the sustainable agenda of 2030 and in health sector 'Universal Health Coverage' is the key outcome to ensure progress on health-related goal of 'Good Health'. Ensuring health services access without facing financial hardship is key to improving the well-being of a country's population. Universal health coverage is an investment in human capital and a foundational driver of inclusive and sustainable economic growth and development. The UHC index is a single indicator that is computed based on 4 proxy areas and 16 tracer indicators to monitor coverage of essential health services.

The National and Provincial/Area snapshot analysis of UHC index showed a gloomy picture of health sector situation in Pakistan. Considering 2017 as baseline by WHO and WB, the UHC index depicted that situation is very poor (40%), worse than the Sub-Saharan Africa (at 42%). However, it has showed comparatively positive trend in UHC achievement in recent years. At National level, performance on the UHC effective coverage index improved from 40.08 in 2015 to 51.22 in 2021.

The National and Provincial/Areas UHC index results from 2015 till 2021 are as follows:

Year wise UHC SCI								
Province/Area	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**% change**
Islamabad	44.7	47.7	48.9	48.5	51.3	56.0	56.3	+25.9%
Punjab	40.6	42.8	45.6	47.3	48.2	52.0	53.5	+31.7%
Azad Jammu & Kashmir	39.0	40.7	43.6	46.2	47.9	49.8	50.3	+28.9%
Khyber Pakhtunkhwa	36.2	40.7	45.8	47.3	47.6	50.3	50.1	+38.3%
Sindh	37.6	40.6	43.9	45.0	46.7	48.6	49.3	+31.1%
Gilgit Baltistan	35.8	39.3	41.0	42.6	43.5	45.2	46.6	+30.1%
Balochistan	27.1	29.3	32.3	33.5	35.0	35.2	36.1	+33.2%
Pakistan	**39.7**	**42.1**	**45.3**	**46.3**	**47.1**	**49.9**	**51.2**	**+28.9%**

Methodology Used in Calculation

Methodology used for estimation is on the approach described in the 2017-Global UHC Monitoring Report (World Bank and WHO). The primary data sources used for indicators of service coverage include Pakistan Demographic & Health Survey (PDHS), Pakistan Social & Living Standards Measurement Surveys, Multiple Indicator Cluster Surveys, National and Provincial Bureau of statistics reports, JEE Report 2016 and WHO Global Monitoring Reports.

A. Reproductive, maternal, new-born and child health (RMNCH)/ Age related cluster

1: Family Planning demand satisfied with modern method (%)- The data source used for 2015 and 2016 is PDHS 2012-13 and from 2017 to 2021, PDHS 2017-18 is used. For AJK, MICS 2020-21 used in 2021. The district level information is referenced from the respective provincial Multiple Indicator Cluster Surveys. However, for KP and Balochistan, the data is estimated using human development index as weightage. In case of AJK and GB, PDHS 2017-18 data is replicated at the district level.

2: Antenatal Care – 4+ visits (%)- At the National and provincial level, the data is referenced from Pakistan demographic and Health surveys. For AJK, MICS 2020-21 is used. At the district level, Punjab-MICS 2014 is used for the year 2015 and 2016, and MICS 2017-18 is used from 2017-2020, Sindh-MICS 2014 is used for 2015 to 2019 and MICS 2018-19 for the year 2020. However, Khyber Pakhtunkhwa MICS 2016-17 is used from the years 2015 to 2020. For Balochistan, MICS 2010 is used for 2015-2020. AJK DHS 2010 is used for the year 2015 and 2016. However, for the year 2017-2020, PDHS 2017-18 is used. GB MICS 2016-17 used for all the years (2015-2020)

3: Child immunization (Penta 3) (%)- At the National and provincial level, the data is referenced from Pakistan demographic and Health surveys from the years 2015-2019, However, for the year 2020 & 2021, EPI third Party evaluation survey 2020 is referenced at the national, provincial and the district level. Punjab MICS 2014 is used for the year 2015 and 2016, and MICS 2017-18 for the years 2017 to 2019. Sindh MICS 2014 is used for the years 2015- 2019. For Khyber Pakhtunkhwa, PSLM 2014-15 is used for the year 2015 and MICS 2016-17 is used for the years 2016-2019. For Balochistan, PSLM 2014-2015 is considered from 2015 to 2019. AJK DHS 2010 is used for 2015 & 2016 and PDHS 2017-18 from 2017 to 2019. GB MICS 2016-17 used for the years 2015-2019.

4: Care-seeking behaviour for child pneumonia (%)- Pakistan demographic and health survey is referenced at the national and the provincial level for the years 2015-2021.For AJK, MICS 2021 is referenced. For Punjab, the district level information for the year 2015 and 2016 is calculated based on PDHS 2012-13 provincial information and weightage of district human development index. However, from the years 2017 to 2020, Punjab MICS 2017-18 is used. Sindh MICS 2014 is used for the years 2015-2019.For the year 2019, MICS 2018-19 is referenced. Khyber Pakhtunkhwa MICS 2016-17 is used from the years 2015 to 2020. For Balochistan, MICS 2010 is used as the referenced for 2015-2020. AJK DHS 2010 is considered in 2015 and 2016 and from 2017 to 2020, PDHS 2017-18 is referenced and data is replicated at the district level. For Gilgit Baltistan, MICS 2016 is used for the years 2015-2020.

B. INFECTIOUS/ COMMUNICABLE DISEASES (CD)

1: Tuberculosis effective treatment (%)- It is calculated by considering two indicators; case detection rate and treatment success rate. The data is referenced from NTP TB reports (2015-21)

2: HIV treatment (%) – The data is provided by Nationals AIDS Control Program, considering estimates of people living with HIV in each province and then taking percentage of ART coverage. For AJK, GB and ICT, we assumed figures as their data is not separately mentioned but included in Punjab

3: Insecticide-treated nets for malaria prevention (%)- This indicator is not being used at international level

4: At least basic sanitation (%)- The data is taken from PSLM 2014-15 for 2015 to 2017 and PSLM 2018-19 for the years 2018 to 2021. For AJK & GB the data is not available and national figure was used

C. NON-COMMUNICABLE DISEASES (NCD)

1: Prevalence of Normal blood pressure (%)- used data from WHO UHC Monitoring reports for Pakistan

2: Normal blood sugar (%)- used data from WHO UHC Monitoring reports for Pakistan

3: Cervical cancer screening among women 30-49 years (%)- This indicator is not being used at international level

4: Tobacco non-smoking (%)- used data from WHO UHC Monitoring reports for Pakistan

D. SERVICES ACCESS AND CAPACITY (SAC)

1: Hospital beds per 10,000 population against threshold (%)- For the year 2020 & 2021, the hospital bed densities are calculated based on the data provided by the provincial/area health departments. The data included both the public and private hospital beds number at the provincial and the district level. However, for the years 2015-2019, the hospital bed densities at the district level are calculated from provincial information using weightage of human development index from the year 2015-2019.For these years, provincial information is referenced from the Statistical Year book, whereas for Areas, reports of the respective Planning and Development department were used. For these years 2015-2019, data is only for public sector and private sector data is not available in all provinces/ areas.

2: (Physicians*Psychiatrist*Surgeon) density against threshold (%)-Data provided by Pakistan Medical Commission (PMC). For ICT, the densities of human resource were calculated based on ICT health facilities mapping data and subtract it from the Punjab data as ICT data was included in the Punjab data. For GB, PMC provided the figures with AJK, considered the HR percent distribution of 25% and 75% among GB and AJK respectively.

3: Availability of essential medicines in PHC (%)- This indicator is not being used at international level

4: International Health Regulations core capacity index (%)- the 13 Core capacities from JEE Report of 2016 were used and estimated the district level figures using weightage of HDI.

Detailed breakdown of the UHC Index at provincial/area level for **2021** (preliminary results) is as following:

UHC Indicators	Punjab	Sindh	KP	Balochistan	ICT	GB	AJK	National
1. Family Planning demand satisfied with modern methods (%)	50.3	50.2	45.1	33.8	55.1	46.4	51.6	48.6
2. Antenatal care -4+ visits	56.2	54.1	44.6	23.1	80.2	34.9	49.2	51.4
3. Child immunization (Penta 3) (%)	94.9	73.2	74.3	42.2	86.3	82.2	95.4	83.5
4. Care-seeking behaviour for child pneumonia (%)	86.1	85.4	84.3	62.2	83.6	76.3	52.8	84.2
RMNCH Aggregate Score	69.33	64.19	59.58	37.84	75.14	56.45	59.80	64.74
5. Tuberculosis effective treatment (%)	63.8	45.4	39.9	28.6	15.6	71.1	40.6	52.4
6. HIV treatment (%)	12.2	9.4	19.8	15.7	12.2	12.2	12.2	12.3
7. Insecticide-treated nets for malaria prevention (%) **	NA	NA	NA	NA	NA	NA	NA	NA
8. At least basic sanitation (%)	89.0	76.0	84.0	44.0	99.0	83.0	83.0	83.0
CD Aggregate Score	41.05	31.88	40.51	27.02	26.61	41.59	34.50	37.68
9. Normal blood pressure (%)	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
10. Normal mean plasma blood sugar (%)	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
11. Cervical cancer screening among women 30-49 years (%) **	NA	NA	NA	NA	NA	NA	NA	NA
12. Tobacco non-smoking (%)	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
NCD Aggregate Score	54.15	54.15	54.15	54.15	54.15	54.15	54.15	54.15
13. Hospital beds per 10,000 population against threshold (%)	55.3	49.8	49.5	28.9	160.7	36.7	72.1	52.8
14. (Physicians*Psychiatrist*Surgeon) density against threshold (%)	48	61.3	46.0	30.3	72.4	33.9	45.2	50.6
15. Availability of essential medicines in PHC (%) **	NA	NA	NA	NA	NA	NA	NA	NA
16. International Health Regulations core capacity index (%)	56.9	49.8	48.8	32.7	68.0	40.7	57.1	53.0
SAC Aggregate Score	53.23	53.37	48.08	30.58	92.47	36.99	57.11	52.12
UHC Index	53.52	49.31	50.07	36.07	56.25	46.57	50.26	51.22

** Indicators are not monitored at international level yet, therefore not considered at national and provincial/area level

Detailed breakdown of the UHC Index at provincial/area level for **2020** is as following:

UHC Indicators	Punjab	Sindh	KP	Balochistan	ICT	GB	AJK	National
17. Family Planning demand satisfied with modern methods (%)	50.3	50.2	45.1	33.8	55.1	46.4	38.5	48.6
18. Antenatal care -4+ visits	56.2	54.1	44.6	23.1	80.2	34.9	46.5	51.4
19. Child immunization (Penta 3) (%)	94.9	73.2	74.3	42.2	86.3	82.2	95.4	83.5
20. Care-seeking behaviour for child pneumonia (%)	86.1	85.4	84.3	62.2	83.6	76.3	80.8	84.2
RMNCH Aggregate Score	69.33	64.19	59.58	37.84	75.14	56.45	60.95	64.74
21. Tuberculosis effective treatment (%)	46.3	43.5	38.2	22.5	12.6	49.7	32.9	42.0
22. HIV treatment (%)	12.5	10.5	22.7	17.1	12.5	12.5	12.5	12.0
23. Insecticide-treated nets for malaria prevention (%) **	NA	NA	NA	NA	NA	NA	NA	NA
24. At least basic sanitation (%)	89.0	76.0	84.0	44.0	99.0	83.0	83.0	83.0
CD Aggregate Score	37.24	32.58	41.77	25.66	25.01	37.25	32.47	34.71
25. Normal blood pressure (%)	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
26. Normal mean plasma blood sugar (%)	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
27. Cervical cancer screening among women 30-49 years (%) **	NA	NA	NA	NA	NA	NA	NA	NA
28. Tobacco non-smoking (%)	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
NCD Aggregate Score	54.15	54.15	54.15	54.15	54.15	54.15	54.15	54.15
29. Hospital beds per 10,000 population against threshold (%)	53.7	39.3	49.2	25.0	161.4	36.7	74.8	49.4
30. (Physicians*Psychiatrist*Surgeon) density against threshold (%)	47.4	61.3	45.7	31.1	82.7	33.3	44.9	50.6
31. Availability of essential medicines in PHC (%) **	NA	NA	NA	NA	NA	NA	NA	NA
32. International Health Regulations core capacity index (%)	56.9	49.8	48.8	32.7	68.0	40.7	57.1	53.0
SAC Aggregate Score	52.51	49.32	47.85	29.40	96.80	36.76	57.69	50.98
UHC Index	52.05	48.61	50.39	35.26	56.02	45.23	49.85	49.91

** Indicators are not monitored at international level yet, therefore not considered at national and provincial/area level

Detailed breakdown of the UHC Index at provincial/area level for **2019** is as following:

UHC Indicators		Punjab	Sindh	KP	Balochistan	ICT	GB	AJK	National
1.	Family Planning demand satisfied with modern methods (%)	50.3	50.2	45.1	33.8	55.1	46.4	38.5	48.6
2.	Antenatal care -4+ visits	56.2	54.1	44.6	23.1	80.2	34.9	46.5	51.4
3.	Child immunization (Penta 3) (%)	89.0	59.2	64.9	37.3	84.0	61.1	84.3	75.4
4.	Care-seeking behaviour for child pneumonia (%)	86.1	85.4	84.3	62.2	83.6	76.3	80.8	84.2
RMNCH Aggregate Score		68.22	60.87	57.60	36.69	74.64	52.42	59.09	63.11
5.	Tuberculosis effective treatment (%)	59.5	54.4	54.9	30.7	39.3	62.8	43.7	54.9
6.	HIV treatment (%)	12.0	9.5	20.6	17.1	11.8	11.8	11.8	12.0
7.	Insecticide-treated nets for malaria prevention (%) **	NA	NA	NA	NA	NA	NA	NA	NA
8.	At least basic sanitation (%)	87.0	70.0	83.0	41.0	80.0	80.0	80.0	80.0
CD Aggregate Score		39.61	33.08	45.46	27.83	33.36	39.00	34.75	37.49
9.	Prevalence of Normal blood pressure (%)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
10.	Normal blood sugar (%)	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
11.	Cervical cancer screening among women 30-49 years (%) **	NA	NA	NA	NA	NA	NA	NA	NA
12.	Tobacco non-smoking (%)	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
NCD Aggregate Score		53.27	53.27	53.27	53.27	53.27	53.27	53.27	53.27
13.	Hospital beds per 10,000 population against threshold (%)	28.9	42.8	36.1	33.0	64.4	45.5	50.1	34.4
14.	(Physicians*Psychiatrist*Surgeon) density against threshold (%)	32.8	41.5	28.5	19.6	31.9	19.6	39.6	33.3
15.	Availability of essential medicines in PHC (%) **	NA	NA	NA	NA	NA	NA	NA	NA
16.	International Health Regulations core capacity index (%)	56.9	49.8	48.8	32.7	68	40.7	57.1	53.0
SAC Aggregate Score		37.76	44.54	36.90	27.65	51.23	33.10	48.71	39.34
UHC Index		**48.29**	**46.76**	**47.63**	**35.02**	**50.49**	**43.57**	**47.98**	**47.19**

** Indicators are not monitored at international level yet, therefore not considered at national and provincial/area level

Detailed breakdown of the UHC Index at provincial/area level for **2018** is as following:

UHC Indicators		Punjab	Sindh	KP	Balochistan	ICT	GB	AJK	National
1.	Family Planning demand satisfied with modern methods (%)	50.3	50.2	45.1	33.8	55.1	46.4	38.5	48.6
2.	Antenatal care -4+ visits	56.2	54.1	44.6	23.1	80.2	34.9	46.5	51.4
3.	Child immunization (Penta 3) (%)	89.0	59.2	64.9	37.3	84.0	61.1	84.3	75.4
4.	Care-seeking behaviour for child pneumonia (%)	86.1	85.4	84.3	62.2	83.6	76.3	80.8	84.2
RMNCH Aggregate Score		68.22	60.87	57.60	36.69	74.64	52.42	59.09	63.11
5.	Tuberculosis effective treatment (%)	70.3	54.3	63.1	27.0	28.9	71.8	43.2	61.1
6.	HIV treatment (%)	8.1	6.2	18.7	11.5	8.1	8.1	8.1	9.0
7.	Insecticide-treated nets for malaria prevention (%) **	NA	NA	NA	NA	NA	NA	NA	NA
8.	At least basic sanitation (%)	87.0	70.0	83.0	41.0	80.0	80.0	80.0	80.0
CD Aggregate Score		36.65	28.59	46.07	23.32	26.50	35.89	30.30	35.30
9.	Prevalence of Normal blood pressure (%)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
10.	Normal blood sugar (%)	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
11.	Cervical cancer screening among women 30-49 years (%) **	NA	NA	NA	NA	NA	NA	NA	NA
12.	Tobacco non-smoking (%)	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60
NCD Aggregate Score		53.27	53.27	53.27	53.27	53.27	53.27	53.27	53.27
13.	Hospital beds per 10,000 population against threshold (%)	29.4	43.9	33.3	33.3	67.8	45.5	51.1	34.4
14.	(Physicians*Psychiatrist*Surgeon) density against threshold (%)	31.1	39.9	27.4	19.6	30.6	19.6	37.7	32.1
15.	Availability of essential medicines in PHC (%) **	NA	NA	NA	NA	NA	NA	NA	NA
16.	International Health Regulations core capacity index (%)	56.9	49.8	48.8	32.7	68	40.7	57.1	53.0
SAC Aggregate Score		37.73	44.33	35.45	27.74	42.03	33.10	47.92	38.85
UHC Index		**47.35**	**45.03**	**47.31**	**33.53**	**48.39**	**42.68**	**46.24**	**46.34**

** Indicators are not monitored at international level yet, therefore not considered at national and provincial/area level

Detailed breakdown of the UHC Index at provincial/area level for **2015** is as following:

UHC Indicators	Punjab	Sindh	KP	Balochistan	ICT	GB	AJK	National
1. Family Planning demand satisfied with modern methods (%)	49.7	48.6	36.4	32.3	61.3	51.9	38.5	47.0
2. Antenatal care -4+ visits	47.0	49.0	34.0	13.0	81.0	28.0	38.7	36.6
3. Child immunization (Penta 3) (%)	76.3	38.6	69.6	27.1	91.2	55.3	65.0	65.2
4. Care-seeking behaviour for child pneumonia (%)	72.1	81.6	29.3	53.5	66.9	81.5	72.3	64.4
RMNCH Aggregate Score	59.87	52.33	39.86	27.93	74.19	50.59	51.44	51.84
5. Tuberculosis effective treatment (%)	71.4	44.0	44.0	27.2	40.3	46.6	43.7	56.7
6. HIV treatment (%)	3.2	2.4	10.4	4.1	3.2	3.2	3.2	5.0
7. Insecticide-treated nets for malaria prevention (%) **	NA	NA	NA	NA	NA	NA	NA	NA
8. At least basic sanitation (%)	79.0	67.0	76.0	31.0	73.0	73.0	73.0	73.0
CD Aggregate Score	26.09	19.20	32.61	15.17	21.00	22.05	21.58	27.46
9. Prevalence of Normal blood pressure (%)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40
10. Normal blood sugar (%)	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
11. Cervical cancer screening among women 30-49 years (%) **	NA	NA	NA	NA	NA	NA	NA	NA
12. Tobacco non-smoking (%)	55.5	55.2	55.2	55.2	55.2	55.2	55.2	55.2
NCD Aggregate Score	51.81	51.81	51.81	51.81	51.81	51.81	51.81	51.81
13. Hospital beds per 10,000 population against threshold (%)	30.0	39.1	23.9	36.1	76.7	45.5	53.2	32.2
14. (Physicians*Psychiatrist*Surgeon) density against threshold (%)	28.0	36.3	17.8	15.8	26.6	15.8	27.1	28.3
15. Availability of essential medicines in PHC (%) **	NA	NA	NA	NA	NA	NA	NA	NA
16. International Health Regulations core capacity index (%)	46.2	40.4	39.6	26.5	55.2	33.0	46.3	43
SAC Aggregate Score	33.85	38.57	25.61	24.71	48.28	28.71	40.57	33.97
UHC Index	**40.69**	**37.64**	**36.24**	**27.14**	**44.43**	**35.89**	**39.09**	**39.79**

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