

RANKING OF DISTRICTS ON THE BASIS OF PROGRAM REVIEW INDICATORS, DECEMBER 2017

December - 2017

DISTRICTS (CMO) PERFORMANCE RANKING

Background

- Improve the districts performance on different indicators by generating evidences and action plan.
- Performance is measured using set of input and output indicators used for program reviews by GoUP
- The Government order No-I44 have been issued by GoUP in Jan 2014 and ranking of districts was started on 34 key indicators (7 input indicators and 27 output indicators) since Apr 2014.

Revised Plan

- NITI Ayog is also preparing state health index based on 28 indicators (given in next slide) on annual basis.
- As per recommendation in 16th PCC, the proposed ranking is based on 41 indicators. The selection of indicators are as following -
 - NITI Ayog index (14/28)
 - PIP conditionality – DH/CHC/PHC ranking (10)
 - State priority/impact on mortality (17)
- Out of 41 indicators 38 are with positive valence and 3 are with negative valence
- Current ranking is based on 36 indicators excluding 4 NITI Ayog indicators (TB, IDSP and HIV) and 1 indicators related to PHC strengthening due to unavailability of data.

Distribution of indicators for program prioritization

Indicator Category	# of indicator
Availability	10
Quality	13
Utilization	10
Data quality	8
Total	41

DATA QUALITY CONSIDERATION TO GENERATE DISTRICT PERFORMANCE RANKING

Indicator	Severe data quality issues/ remedial action taken
Stock-out rate of essential drugs	Issue: Under reporting and misreporting Remedial Action: Rounded of the value into 100 % if it is more than 100 Suggestion: Strengthen the reporting quality
Percentage of maternal complication identification rate	Issue: Plenty of outlier numbers and duplication in maternal complication - Under reporting of Institutional deliveries Remedy: Removed the outliers and excluded SC level reporting to avoid the duplication Suggestion: Strengthen the quality of reporting and train to report without duplication in maternal complication categories
Percentage of new born complication rate	Issue: Plenty of outlier numbers and duplication in newborn complication - Under reporting of Institutional deliveries Remedial Action: Removed the outliers and excluded SC level reporting to avoid the duplication Suggestion: Strengthen the quality of reporting and train to report without duplication in newborn complication categories
Number of laboratory tests per technician	Issue: Plenty of outliers by over reporting in lab test conducted - Under reporting of LA/LTs Remedial Action: Major outliers removed and cumulative data are used for lab test. Max number of LA/LTs reported were are used for denominator Suggestion: Strengthen the reporting quality especially in avoiding outlier for lab test and underreporting of LA/LTs
Number of OPD per doctor	Issue: Plenty of outliers by over reporting in OPDs - Under reporting of Doctors Remedial Action: Major outliers removed and cumulative data are used for OPDs. Maximum number of doctors reported were are used as denominator Suggestion: Strengthen the reporting quality especially in avoiding outlier for OPDs and underreporting of doctors
Patient satisfaction score	Issue: Non-reporting and misreporting Remedial Action: Excluded the outlier which have the value more than 100 Suggestion: Strengthen the reporting quality
Percentage of maternal complication treated	Issue: Plenty of outlier numbers and duplication in maternal complication treated - Under reporting of Institutional deliveries Remedy: Removed the outliers and excluded SC level reporting to avoid the duplication Suggestion: Strengthen the quality of reporting and train to report without duplication in maternal complication treated categories
Percentage of new born complication treated	Issue: Plenty of outlier numbers and duplication in newborn complication treated - Under reporting of Institutional deliveries Remedial Action: Removed the outliers and excluded SC level reporting to avoid the duplication Suggestion: Strengthen the quality of reporting and train to report without duplication in newborn complication treated categories

DATA QUALITY CONSIDERATION TO GENERATE DISTRICT PERFORMANCE RANKING

Indicator	Moderate data quality issues/ remedial action taken
Percentage of specified type of facilities functioning as First Referral Units (FRUs)	<p>Data Quality: Moderate</p> <p>Reporting of C-section delivery from CHC/BCHC/DH taken as proxy to FRU</p> <p>Issue: Poor quality of data on C-section deliveries</p> <p>Remedial Action: Reporting of C-section delivery in any of the last 8 months from CHC/BCHC/DH considered as FRU</p> <p>Suggestion: Strengthen the reporting of C-section delivery</p>
C-section delivery rate	<p>Data Quality: Moderate</p> <p>Issue: Poor quality of data on C-section deliveries</p> <p>Remedial Action: Reporting of C-section delivery in any of the last 8 months from CHC/BCHC/DH considered as FRU</p> <p>Suggestion: Strengthen the reporting of C-section delivery</p>
Surgical Productivity Index	<p>Data Quality: Moderate</p> <p>Issue: Under/non reporting of major surgeries and surgeon</p> <p>Remedial Action: Maximum number of surgeon reported in any of months were taken</p> <p>Suggestion: Strengthen the quality of reporting</p>
Percentage of fully immunized children as per MCTS	<p>Data Quality: Moderate - under reporting</p>

Summary statistics of variables (75 Districts)

Availability Variables	Mean	Std. Dev.	Min	Max
% of specified type of facilities functioning as First Referral Units (FRUs)	28	18	0	83
% of CHCs with grading above 3 points	52	32	0	100
% of NHM funds utilized	50	8	28	75
% of vacant health care provider positions (Regular + Contractual) in public health facilities	54	11	-10	71
% of total staff (regular + contractual) for whom an e-pay slip can be generated in the IT enabled HRMIS	46	16	5	75
% of 24x7 PHCs providing all stipulated healthcare services	3	5	0	23
Number of functional hospital beds per 100,000 population	23	11	7	65
Stock-out rate of essential drugs (if reported value more than 100 than assumed only 100%)	12	30	0	100
% of CHCs/PHCs which have Stand-by facility (generator) available	22	14	2	87
% of PHCs with grading above 3 points	22	22	0	100
Data Quality Variables	Mean	Std. Dev.	Min	Max
Proportion of Reporting Units (RU) reporting in stipulated time period against total Reporting Units, for P and L forms during period	64	22	0	100
% of deliveries which are not reported	25	17	-25	61
% of estimated pregnant women registered in MCTS	52	8	27	88
% of estimated children registered in MCTS	45	9	20	71
Maternal death reported per 100 expected maternal death	34	24	0	102
% of reports uploaded on UPHMIS portal against expected reports (HMIS/UPHMIS) before 30th	74	21	17	100
% of facilities which have reported more than 80% non-blank data elements	66	22	8	100
% of facilities which have reported more than 50% non-zero data elements	7	7	0	36

Summary statistics of variables 75 districts (Contn....)

Service Quality Variables	Mean	Std. Dev.	Min	Max
% of low birth weight (less than 2.5 Kg) new born	11	4	5	25
% of pregnant women (15-49 years) who are anemic	34	13	9	70
Total case notification rate of TB	56	17	23	106
% of maternal complication identification rate	2	3	0	20
% of new born complication rate	1	2	0	16
% of pregnancy identified as HRP	4	2	1	11
Number of laboratory tests per technician per day only at DH	88	109	0	514
Number of OPD per doctor per day only at DH	24	18	0	62
C-section delivery rate	4	5	0	27
Surgical Productivity Index per month	32	31	0	160
Blood Bank Replacement rate	14	29	0	198
Post-surgical infection rate	2	11	0	66
Patient satisfaction score	6	20	0	100
Utilization Variables	Mean	Std. Dev.	Min	Max
% of institutional deliveries against estimated deliveries	61	16	24	105
Treatment success rate of new smear positive tuberculosis (TB) cases	77	37	32	247
% of people living with HIV (PLHIV) on antiretroviral therapy (ART)	0	0	0	0
% of maternal complication treated	1	2	0	10
% of new born complication treated	1	1	0	4
% change in OPD	-9	17	-56	23
% change in IPD	17	56	-71	236
% of Sterilization to total workload	14	14	1	101
% of PPIUCD insertion to total number of births	12	6	2	38
% of fully immunized children as per MCTS	32	9	7	50

Summary statistics of variables (between poor and best performance districts)

Availability Variables	Poor Performers				Best Performers			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
% of specified type of facilities functioning as First Referral Units (FRUs)	11	10	0	25	49	22	27	82
% of CHCs with grading above 3 points	63	37	20	100	68	32	20	100
% of NHM funds utilized	48	11	36	59	45	15	28	62
% of vacant health care provider positions (Regular + Contractual) in public health facilities	59	7	50	69	41	29	-10	59
% of total staff (regular + contractual) for whom an e-pay slip can be generated in the IT enabled HRMIS	55	26	9	73	40	12	27	56
% of 24x7 PHCs providing all stipulated healthcare services	1	1	0	3	5	5	0	13
Number of functional hospital beds per 100,000 population	19	9	11	33	45	16	22	65
Stock-out rate of essential drugs (if reported value more than 100 than assumed only 100%)	20	45	0	100	22	35	0	83
% of CHCs/PHCs which have Stand-by facility (generator) available	7	4	2	11	19	5	12	25
% of PHCs with grading above 3 points	8	6	0	18	17	12	6	35
Data Quality Variables	Poor Performers				Best Performers			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Proportion of Reporting Units (RU) reporting in stipulated time period against total Reporting Units, for P and L forms during period	45	25	0	63	81	10	67	95
% of deliveries which are not reported	27	16	10	49	10	23	-12	49
% of estimated pregnant women registered in MCTS	47	8	37	55	54	7	44	61
% of estimated children registered in MCTS	36	9	20	43	44	9	33	57
Maternal death reported per 100 expected maternal death	27	17	7	47	54	39	3	95
% of reports uploaded on UPHMIS portal against expected reports (HMIS/UPHMIS) before 30th	45	23	18	74	86	7	77	96
% of facilities which have reported more than 80% non-blank data elements	49	24	9	72	77	14	55	90
% of facilities which have reported more than 50% non-zero data elements	2	1	0	3	8	3	5	12

Summary statistics of variables (between poor and best performance districts) (Contn...)

Service Quality Variables	Poor Performers				Best Performers				
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	
% of low birth weight (less than 2.5 Kg) new born	9		1	7	10	15	3	11	18
% of pregnant women (15-49 years) who are anemic	24		11	11	33	46	10	35	63
Total case notification rate of TB	48		19	28	71	68	18	47	92
% of maternal complication identification rate (outlier reporting is excluded from ranking)	1		0	0	1	2	1	1	4
% of new born complication rate	1		1	0	2	2	1	0	3
% of pregnancy identified as HRP	3		1	2	4	4	2	2	6
Number of laboratory tests per technician per day only at DH	4		6	0	13	246	212	65	514
Number of OPD per doctor per day only at DH	7		10	0	22	43	11	28	52
C-section delivery rate	2		2	0	4	11	10	1	27
Surgical Productivity Index per month	24		30	0	74	70	46	17	124
Blood Bank Replacement rate	0		0	0	0	53	84	0	198
Post-surgical infection rate	0		1	0	1	0	0	0	1
Utilization Variables	Poor Performers				Best Performers				
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	
% of institutional deliveries against estimated deliveries	60		13	46	79	82	23	50	105
Treatment success rate of new smear positive tuberculosis (TB) cases	84		49	44	161	58	33	32	113
% of people living with HIV (PLHIV) on antiretroviral therapy (ART)	0		0	0	0	0	0	0	0
% of maternal complication treated	0		0	0	1	2	1	0	4
% of new born complication treated	1		0	0	1	1	1	0	3
% change in OPD	-16		13	-30	-1	2	8	-7	11
% change in IPD	-15		25	-35	26	72	73	0	158
% of Sterilization to total workload	10		6	5	20	35	38	9	101
% of PPIUCD insertion to total number of births	9		2	6	11	17	7	8	23
% of fully immunized children as per MCTS	27		16	7	47	26	5	21	34

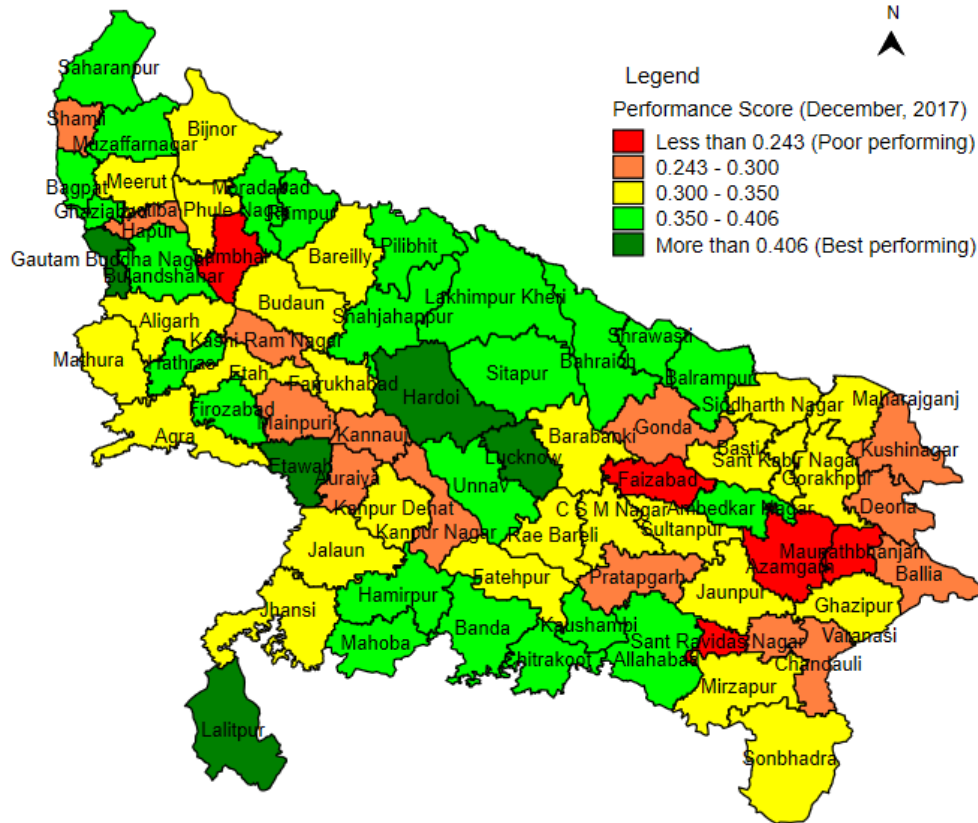
Using the aforesaid methodology, districts are ranked based on 40 indicators, out of 41 indicators. 1 indicator is not included since we need to collect the same from department

Good Performing Districts (by All Indictors)

Poor Performing Districts (by All Indicators)

District	Index	Rank	District	Index	Rank
Lalitpur	0.4604	1	Sant Ravidas Nagar	0.2423	71
Lucknow	0.4566	2	Maunathbhanjan	0.2416	72
Gautam Buddha Nagar	0.4414	3	Azamgarh	0.2402	73
Hardoi	0.4232	4	Faizabad	0.2361	74
Etawah	0.4105	5	Sambhal	0.2220	75

CLASSIFICATION OF DISTRICTS OF UTTAR PRADESH BASED ON INDEX VALUE



- As per index the districts are classified in 5 groups.
- There are 5 top and 5 poor districts based on Index value.
- To improve poor performing districts major indicators are given in next slides
- 27 districts are in yellow colour, these districts are also need high focus on implementation of activities and ensuring availability.
- 23 districts are in light green colour, these are classified in moderate group.

MAJOR INDICATORS IN WHICH POOR PERFORMER DISTRICT SCORED LOWEST AND NEED TO IMPROVE

Sant Ravidas Nagar	Maunathbhanjan	Azamgarh	Faizabad	Sambhal
1. Number of laboratory tests per technician per day only at DH	1. % of new born complication treated	1. % of 24x7 PHCs providing all stipulated healthcare services	1. Patient satisfaction score	1. Patient satisfaction score
2. Number of OPD per doctor per day only at DH	2. % of new born complication rate	2. Number of laboratory tests per technician per day only at DH	2. % of maternal complication treated	2. % of 24x7 PHCs providing all stipulated healthcare services
3. Patient satisfaction score	3. % of maternal complication treated	3. Number of OPD per doctor per day only at DH	3. % of maternal complication identification rate	3. C-section delivery rate
4. C-section delivery rate	4. % of maternal complication identification rate	4. % of maternal complication treated	4. % of new born complication treated	4. % of specified type of facilities functioning as First Referral Units (FRUs)
5. % of new born complication treated	5. % of facilities which have reported more than 50% non-zero data elements	5. % of new born complication treated	5. % of new born complication rate	5. Number of laboratory tests per technician per day only at DH
6. % of new born complication rate	6. C-section delivery rate	6. % of new born complication rate	6. % of facilities which have reported more than 50% non-zero data elements	6. Number of OPD per doctor per day only at DH
7. % of maternal complication treated	7. % of CHCs/PHCs which have Stand-by facility (generator) available	7. % of maternal complication identification rate	7. % of 24x7 PHCs providing all stipulated healthcare services	7. % of PHCs with grading above 3 points
8. % of maternal complication identification rate	8. % of 24x7 PHCs providing all stipulated healthcare services	8. % of facilities which have reported more than 50% non-zero data elements	8. % of pregnancy identified as HRP	8. Surgical Productivity Index per month

COMPARATIVE PERFORMANCE RANKING

Description	Oct 2017	Nov 2017	Dec 2017	Consistent
Top performing	Lucknow Bagpat Gautam Buddha Nagar Lalitpur Etawah	Lucknow Gautam Buddha Nagar Lalitpur Ghaziabad Etawah	Lalitpur Lucknow Gautam Buddha Nagar Hardoi Etawah	Lalitpur Lucknow Gautam Buddha Nagar Etawah
Poor Performing	Azamgarh Meerut Kushinagar Sambhal Sant Ravidas Nagar	Sambhal Azamgarh Maunathbhanjan Sant Ravidas Nagar Ballia	Sant Ravidas Nagar Maunathbhanjan Azamgarh Faizabad Sambhal	Sant Ravidas Nagar Azamgarh Sambhal

District Ranked by Selected NITI AYOOG indicators:

13 indicators are used out of 14 suggested indicators. Excluded 1 of the indicators are not directly available but need to collect from department)

Good Performing Districts (by NITI Ayog Indicators)			Poor Performing Districts (by NITI Ayog Indicators)		
District	Index	Rank	District	Index	Rank
Lucknow	0.5784	1	Mainpuri	0.3036	71
Kanpur Nagar	0.5458	2	Jyotiba Phule Nagar	0.2960	72
Kaushambi	0.5455	3	Auraiya	0.2713	73
Firozabad	0.5179	4	Ballia	0.2407	74
Lalitpur	0.5107	5	Sambhal	0.2334	75

District Ranked by Data Quality Indicators : 8 indicators are used out of 8 suggested indicators.

Good Performing Districts (by Data Quality Indicators)

Poor Performing Districts (by Data Quality Indicators)

District	Index	Rank	District	Index	Rank
Pilibhit	0.7414	1	Faizabad	0.3032	71
Lalitpur	0.6898	2	Hapur	0.2964	72
Shrawasti	0.6774	3	Azamgarh	0.2412	73
Sonbhadra	0.6751	4	Maunathbhanjan	0.2321	74
Balrampur	0.6691	5	Kanpur Nagar	0.1756	75

THANK YOU

