

HEALTH DISPARITIES IN HARYANA: AN INTER-DISTRICT ANALYSIS

Mr. Deepak Deswal¹ and Prof. Padam S. Bisht²

^{1,2}Dept. Of Economics, DSB campus, Kumaun University, Nainital

DOI: 10.46609/IJSSER.2021.v06i12.039 URL: <https://doi.org/10.46609/IJSSER.2021.v06i12.039>

Received: 2 Nov. 2021 / Accepted: 18 Dec. 2021 / Published: 30 Dec. 2021

ABSTRACT

Haryana, one of India's economically robust states, faces health infrastructure disparities among its districts. Among the 21 districts of the State, a few are endowed with better health facilities, while others lag behind. To comprehend and redress inequalities in Haryana's healthcare system, it's essential to analyze district-wise health infrastructure resources, including hospitals, health centers, medical institution beds, doctors, nurses, etc. This study aims to analyze health infrastructure disparities among Haryana's districts. The coefficients of variation, ratios, and development indices of eight indicators of health infrastructure are analyzed. The greatest disparities in health facility availability, as shown by coefficient of variation statistics, are in the number of hospital beds. The findings reveal that most districts have a disproportionately small number of health infrastructure indicators, such as doctors, nurses, beds, hospitals, primary health centers, community health centers, and dispensaries, relative to their population. The health infrastructure development indices vary significantly among districts. On the basis of these indices, it is found that the districts including Bhiwani and Hisar are developed while district Ambala, Panchkula, Karnal, Jhajjar, Jind, Sonipat, Mahendragarh and Rohtak also have a considerable improvement from year 2007-08 to 2015-16 in physical and human health infrastructure. Lastly, the third category of the districts are Kurukshetra, Panipat, Kaithal, Yamunanagar, Fatehabad, Sirsa, Faridabad, Gurugram, Rewari, Nuh and Palwal. which are underprivileged with regard to the development of health infrastructure and thus, looking for immediate attention with concrete plan of action from Government of Haryana.

Key Words: Health Infrastructure, Disparities, Development Index, Haryana.

I. INTRODUCTION

Haryana is one of the states which has shown considerable progress since its inception in 1966. With a splendid economic growth, one of the highest per capita income indices, sound industrial

infrastructure, strong manufacturing base, advanced agriculture sector and vibrant service sector, Haryana is one of the highly economically developed and industrialized States of India. Today, it enjoys the unique distinction in India of having provided electricity, metaled roads and potable drinking water to all its villages within record time. Haryana has also done very well in terms of human development. The performance of the state as a whole is commendable. Given this background, it is interesting to analysis whether, the benefits of the state progress have been distributed equally or they are concentrated in few pockets of the state.

Role of health in Economic Growth: Enhancing the quality of growth is an important objective of the development paradigm in many developing countries. Better health, education, equal and wider job opportunities to all, trustworthy and transparent people, sustainable and cleaner environment, dignity, self-esteem and life security, among others, are key manifestations of the quality of growth (World Bank, 2000). If the quality of human capital is not good, physical capital and natural resources cannot be properly utilized and growth could neither be sustained nor be qualitative. Health is a major segment of human capital.

Covid19 and Human Capital: Covid19 adversely affect the health status which indicates that human capital is affected and human capital is directly linked with growth and development of an economy. According to Centre for Monitoring Indian Economy (CMIE), the unemployment rate will be around 12 per cent at the end of May 2021 which translates into a loss of job by 1 crore people during the period due to the 2nd wave of corona pandemic And Income of 97 per cent households have declined since the outbreak of the pandemic last year. The unemployment rate stands at 12.4 per cent, urban 15.1 per cent and rural 11.2 per cent on 3rd June 2021. We noted that small towns and rural areas were not very affected by COVID 19 pandemic last year. But during the 2nd wave, it has spilt over these areas also affecting employment situation. The report said that there has been a rise of 15 per cent in poverty in rural India and a rise of 20 per cent in urban India during the last one pandemic year.

II. REVIEW OF LITERATURE

Barman and Roy (2018) highlights healthcare facilities, development and problems of public health situation in Koch Bihar district using geographic information system (GIS). The paper also calculates the health infrastructure index (HII) and health inequality index of health indicators with respect to health infrastructure at the block level of the district. A health infrastructure index is developed using health inputs like number of hospitals and dispensaries, number of beds and number of doctors in government hospitals.

Garg, Ishu and Gupta, Karnika (2015) finds that in most of the districts, the ratios of health infrastructural indicators including doctor, nurse, bed, hospital, Primary health centre,

Community health centre, dispensary to population are insignificant and exploring wide imbalances. Finally, the deprivation as well as development indices of health infrastructure reveal the discrepancies in districts with regard to health infrastructural development.

Sheet and Roy (2013) studied the regional disparities in health care infrastructure in nineteen blocks of Birbhum district (West Bengal). They constructed the deprivation and development index for each block on the basis of eight indicators of health care infrastructure. It was concluded that the blocks of Sainthia, Bolpur-Santiniketan and Labpur are more developed in respect to health care infrastructure and blocks including Nalhati-I, Suri-I, Mayureshwar-I and II are less developed. Hence the need of adequate planning was stressed to equally develop health care infrastructure.

Ghatak and Das (2012) found that health care system in the district of Birbhum of West Bengal is very far from the level of satisfaction, especially from the infrastructural point of view. Lacking of this facility leads to inconsistency in the development of basic health care system as well as in overall development of the society. It was further seen that discrepancies existed both in spatial and temporal scale.

Gupta (2012) examined the degree of health inequalities across districts of urban Uttar Pradesh by applying the principal component analysis and found the existence of wide regional disparities regarding health of urban population. The study concluded that the Western region of the State was the leading region in urban health; though its performance is poor regarding illness, maternal and child health. Further, Eastern region performed poor in case of socio-economic development but other health indicators are revealing the successfulness of this region.

Narayan, L. (2011) found wide inter-district disparities in various health indicators. Some districts scoring high on health infrastructure performed poorly on uses of health facilities and vice-versa.

III. OBJECTIVES OF THE STUDY

1. To measure and analyse the disparity in the physical and human infrastructure of health.
2. To examine and analyse the health service delivery in Haryana.
3. To recommend some suggestions for policy implementation.

IV. DATA AND METHODOLOGY

Data Sources: This study is based on secondary data and all the requisite data have been obtained from various authentic sources Like -Statistical Abstract of Haryana (2015-16), National Family Health Survey-4 (2015-16). This study also uses data from Sample Registration

System (SRS) Bulletin and Civil Registration System (CRS) Report publish by Vital Statistics Division of Registrar general, India. The infrastructure related health statistics are also used from Rural Health Statistics (RHS) Bulletin published by Ministry of Health and Family Welfare, Government of India. The data has been examined at district level and the latest available data has been used.

Variable used: Following variables are used in this study: (i) Number of Institutions. (ii) Total patient treated. (iii) Number of beds. (iv) Number of doctors. (v) Total number of staff. (vi) Percentage of pregnant women going for full ANC. (vii) Percentage of Institutional delivery. (viii) Percentage of children having full Immunization.

Methods of the study: For construction of index, multidimensional index and composite index is used. To measure the inter-district disparities related to above indicators are analysed by the method of Coefficient of Variation (CV) calculated as Standard deviation/Mean \times 100.

Construction of multidimensional index: The present approach is similar to that used by UNDP for computation of some well-known development indexes such as the HDI, the HPI, the GDI and so on. As in the case of these indexes, this study proposed CIV (composite index value) is computed by first calculating a dimension index for each dimension of health physical and human infrastructure.

The dimension index for the i^{th} dimension, h_i , is computed by the following formula.

$$h_i = \frac{A_i - m_i}{M_i - m_i}$$

Where,

A_i = Actual value of dimension i

m_i = Lower limit on the value of dimension i

M_i = Upper limit on the value of dimension i

$$CIV = \frac{\sum_{i=1}^n d_i}{n}$$

Where

d_i = dimension index.

n = no of dimensions.

CIV= Composite Index Value.

V. DATA ANALYSES AND INTERPRETATIONS

In order to examine the disparities firstly Standard deviation and coefficient of variation is used. Then by using Normalisation, Composite Index of Health physical and human infrastructure and Health service delivery is constructed for overall performance of all Districts.

Table 1. Health Physical and Human Infrastructure Dimension (2015-16).

	H ₁	H ₂	H ₃	H ₄	H ₅
Mean	189.9	1431.7	397.9	171.5	114.4
S. D	52.5	380.3	146.4	325.4	29.3
C.V	27.6	26.6	36.8	45.3	25.6

Source: Above Calculation is based upon Appendix I.

For H₁, H₂, H₃, H₄ and H₅ refer to Appendix I. As the above table shows that the value of Standard Deviation (SD) and coefficient of variation (CV) are very high which shows that there are disparities in health physical and human infrastructure among all the districts of Haryana in the year 2015-16.

Table 2. Health Physical and Human Infrastructure Dimension index.

Districts	H ₁	H ₂	H ₃	H ₄	H ₅
Ambala	0.3190	0.9014	0.5146	0.6261	0.8302
Bhiwani	0.7524	0.9124	1.0000	1.0000	0.6509
Faridabad	0.0000	0.4091	0.2419	0.2994	0.3019
Fatehabad	0.4524	0.1867	0.2974	0.3643	0.0000
Gurugram	0.1429	0.6986	0.3498	0.4698	0.6415
Hisar	1.0000	1.0000	0.8274	0.8046	0.6887
Jhajjar	0.5381	0.5371	0.3991	0.6047	0.9245
Jind	0.7429	0.5322	0.4052	0.7294	0.4057
Kithal	0.5143	0.3870	0.2743	0.3510	0.1792
Karnal	0.6762	0.6207	0.2296	0.5914	0.5377
Kurukshetra	0.3810	0.6779	0.2435	0.4071	0.2453

Mahendragarh	0.5190	0.3572	0.2835	0.8127	0.5849
Nuh	0.4667	0.0000	0.0863	0.3274	0.0377
Palwal	0.2476	0.1687	0.0000	0.0000	0.3302
Panchkula	0.0714	0.8678	0.3975	0.5044	0.8019
Panipat	0.2667	0.2111	0.0709	0.2994	0.3491
Rewari	0.3714	0.2599	0.4176	0.0745	0.3962
Rohtak	0.4810	0.5090	0.2851	0.5376	1.0000
Sirsa	0.6810	0.4135	0.3529	0.3584	0.6226
Sonipat	0.7762	0.5952	0.3005	0.6099	0.6887
Yamunanagar	0.3905	0.6398	0.3636	0.5192	0.3679

Source: Above Calculation is based upon Appendix I.

The Health Physical and Human infrastructure development indicators (H₁, H₂, H₃, H₄ and H₅) are taken same as in Table 1. For calculation of this index, firstly all the health physical and human infrastructure development indicators (H₁, H₂, H₃, H₄ and H₅) are dividing by population of respective Districts for getting the per head availability of health physical infrastructure.

Secondly, for normalisation following formula is used-

$$H_i = \frac{A_i - m_i}{M_i - m_i}$$

As above table depicted, the number of Institutions, total number of patients treated are highest in district Hisar but total number of beds and total number of staff are highest in Bhiwani in year 2015-16 and highest number of doctors are highest in Rohtak. While in Nuh there are least patient treated. And total number of staff and beds are least in Palwal. Table 2 also shows that the availability of doctors and institutions are least in Faridabad and Fatehabad respectively. So, there is disparities in health physical infrastructure. Therefore, For the overall performance the composite index is used as shown in table 3.

Table 3. Composite index.

Districts	Index value	Status
Ambala	0.6383	MD
Bhiwani	0.8632	HD
Faridabad	0.2505	LD

Fatehabad	0.2601	LD
Gurugram	0.4605	LD
Hisar	0.8641	HD
Jhajjar	0.6007	MD
Jind	0.5631	MD
Kithal	0.3412	LD
Karnal	0.5311	MD
Kurukshetra	0.3909	LD
Mahendragarh	0.5115	MD
Nuh	0.1836	LD
Palwal	0.1493	LD
Panchkula	0.5286	MD
Panipat	0.2394	LD
Rewari	0.3039	LD
Rohtak	0.5625	MD
Sirsa	0.4857	LD
Sonipat	0.5941	MD
Yamunanagar	0.4562	LD

Source: Above Calculation is based upon Table 2.

For calculation of composite index value, the following formula is used –

$$CIV = \frac{\sum_{i=1}^n H_i}{n}$$

The above development status of Districts is taken same as HDI (Human Development Index). A value above 0.800 is classified as HD (Highly Developed), between 0.700 and 0.799 DD (Developed), 0.550 to 0.699 as MD (Moderately Developed) and anything below 0.550 as LD (Low Developed).

In above table, we can combine all the physical infrastructure dimensions and get the overall performance of these districts in the health sector in the year 2015-16. In this year, all the districts in Haryana show remarkable growth and improve their overall health infrastructure. Table 3 demonstrates that in 2015-16, Hisar stands first in health infrastructure development followed by Bhiwani have Highly developed in health infrastructure development. While

districts like Ambala, Jhajjar, Sonipat, Jind, Karnal, Mahendragarh, Panchkula, Rohtak are moderately developed in the year 2015-16. All the districts show positive growth in 2015-16 with most numbers of the district have developed and moderately developed index. Apart from them, all other districts are less developed in all health infrastructure development. While three districts Panipat, Nuh and Palwal are stands in the very last positions in a Health infrastructure development.

Table 4 Health Service delivery Dimension index.

Districts	D ₁	D ₂	D ₃
Ambala	0.8004	0.9882	1.0000
Bhiwani	0.3347	0.8378	0.6287
Faridabad	0.1705	0.5811	0.3938
Fatehabad	0.5676	0.9054	0.8837
Gurugram	0.2412	0.6182	0.1246
Hisar	0.1601	0.8986	0.7378
Jhajjar	0.3035	0.8328	0.4377
Jind	0.4948	0.9341	0.9004
Kaithal	0.6694	0.7770	0.9181
Karnal	0.7879	0.9307	0.9241
Kurukshetra	0.4304	0.9088	0.8909
Mahendragarh	0.2786	1.0000	0.7106
Nuh	0.0125	0.0000	0.0000
Palwal	0.0000	0.3142	0.1447
Panchkula	0.9584	0.9949	0.9941
Panipat	0.2994	0.6858	0.6560
Rewari	0.1206	0.8885	0.3333
Rohtak	0.2557	0.8226	0.6050
Sirsa	0.4886	0.8024	0.7367
Sonipat	0.2495	0.7787	0.6050
Yamunanagar	1.0000	0.9595	0.8873

Source: Above Calculation is based upon Appendix II.

The method of calculation of this index value is same as of Table 2. As the above table depicted, the district Yamunanagar got the highest Improvement from 22.8 percent to 49.8 percent among all the districts of Haryana in year 2015-16 in Antenatel Care service delivery and stood First in this year followed by District Panchkula and Ambala. While Palwal is at last position in which only 1.7 percent of pregnant women take full ANC in this year. But Institutional delivery are found highest in District Mahendragarh which is 96.8 percent in this year, followed by Panchkula and Ambala. Table 4 also demonstrates that Full Immunization is found highest in District Ambala in which 97.4 percent child take Full Immunisation, followed by District Karnal and Kaithal. And District Nuh found last position in both Antenatal care and full Immunisation. So, Table 4 shows that there are disparities in health service delivery. Therefore, For the overall performance of these three dimensions the composite index is used as shown in Table 5.

Table 5. Composite index.

Districts	index value	Status
Ambala	0.9295	HD
Bhiwani	0.6004	MD
Faridibad	0.3818	LD
Fatehabad	0.7856	DD
Gurugram	0.3280	LD
Hisar	0.5989	MD
Jhajjar	0.5247	LD
Jind	0.7764	DD
Kithal	0.7882	DD
Karnal	0.8809	HD
Kurukshetra	0.7433	DD
Mahendragarh	0.6630	MD
Nuh	0.0042	LD
Palwal	0.1530	LD
Panchkula	0.9825	HD
Panipat	0.5471	MD
Rewari	0.4475	LD

Rohtak	0.5611	MD
Sirsa	0.6759	MD
Sonipat	0.5444	MD
Yamunanagar	0.9489	HD

Source: Above Calculation is based upon Table 4.

The method of calculation of composite index value and development status of all Districts as shown in above table is taken on the same scale as in Table 3. In this table, the Researcher finds the composite value to categories the districts to find out the progress in service delivery area in 2015-16. In this year, all the districts of Haryana show noteworthy growth in service delivery development in Haryana. Table 5 demonstrates that in 2015-16, Panchkula stands first in Service delivery development and improves in various health areas in 2015-16 followed by Yamunanagar, Ambala and Karnal with highly positive signs in Service delivery development. While districts like Kurukshetra, Kaithal, Rohtak, Sonipat, Panipat, Mahendragarh, Sirsa are moderately developed in the year 2015-16. All the districts show positive growth in 2015-16 with most numbers of the district have highly and moderately developed index. Apart from them, all other districts are less developed in all health service delivery development. While three districts Nuh, Palwal and Gurgaon are stands in the very last positions in Health Service delivery development.

VI. MAJOR FINDINGS AND CONCLUSION

On the whole, it can be concluded from the present study that there is substantial gap in the availability of health infrastructure in various districts of Haryana. Firstly, calculated values of Coefficient of Variation disclose the existence of inter-district imbalances which are highest in case of available beds in medical institutions followed by total number of staff and total number of doctors. Secondly, the multi dimension indices value indicates the large gap which shows the disparities in both the physical and human infrastructure of health and service delivery in health.

Table-6. Classification of districts According to Composite Score.

Category	Number of Districts	Name of Districts
HD (above 0.800)	02	Bhiwani and Hisar.
DD (0.700 to 0.799)	0	-

MD (0.550 to 0.699)	08	Ambala, Panchkula, Karnal, Jhajjar, Jind, Sonipat, Mahendragarh and Rohtak.
LD (below 0.550)	11	Kurukshetra, Panipat, Kaithal, Yamunanagar, Fatehabad, Sirsa, Faridabad, Gurugram, Rewari, Nuh and Palwal.

Source: Compiled from Table – 3.

The above table demonstrate that District Bhiwani and Hisar Shows a substantial improvement in year 2015-16. This table also shows that District Ambala, Panchkula, Karnal, Jhajjar, Jind, Sonipat, Mahendragarh and Rohtak also have a considerable improvement from year 2007-08 to 2015-16 in physical and human health infrastructure.

Table – 7. Classification of districts According to Composite Score.

Category	Number of Districts	Name of Districts
HD (above 0.800)	04	Ambala, Yamunanagar, Panchkula and Karnal.
DD (0.700 to 0.799)	04	Kaithal, Fatehabad, Kurukshetra and Jind
MD (0.550 to 0.699)	07	Bhiwani, Hisar, Mahendragarh, Panipat, Rohtak, Sirsa and Sonipat.
LD (below 0.550)	06	Gurugram, Faridabad, Jhajjar, Rewari, Palwal and Nuh.

Source: Compiled from Table – 5.

The above table demonstrate that District Ambala, Yamunanagar, Panchkula and Karnal Shows a significant improvement in year 2015-16. This table also shows that District Kaithal, Fatehabad, Kurukshetra and Jind also have a considerable improvement from year 2007-08 to 2015-16 in health service delivery.

VIII. POLICY IMPLICATIONS

- (i) This study is help to understand the current availability of physical and human infrastructure of Health.
- (ii) It’s also helps to understand the availability of health service delivery in Haryana.
- (iii) The findings of this study will be used to address the policy and programmatic aspects of ensuring equity health services in state of Haryana.

- (iv) It will facilitate action planning to strengthen health systems and programmer at the district level and aid in addressing state specific needs.

REFERENCES

Arora, S. (2001). Health, human productivity, and long-term economic growth. *The Journal of Economic History*, 61(3), 699-749.

Bloom, A. and Canning, D. (2005). The Effect of Population Health on Foreign Direct Investment Inflows to Low- and Middle-Income Countries. *World Development*, 34(4), 613-630.

Booklet on Haryana Economy (2014), Issued by Department of Economic and Statistical Analysis Haryana, Government of Haryana, Assessed on 26 November, 2014.

Bloom, D.E. & Fink, G. (2013). The Economic Case for Devoting Public Resource to Health. *IZA Policy Paper No. 57*, May 2013.

Bala, T. (2016) Disparities in Health in State of Haryana.

Barman, B., & Roy, R. (2018). Regional Disparities of Health Care Infrastructure in Koch Bihar District, West Bengal. *Research Journal of Humanities and Social Sciences*, 9(4), 949-959.

Deswal, Deepender (2011), 'Haryana Faces Lack of Health Infrastructure, Doctors', The Times of India (November 11, 2011), "Assessed on 24 November, 2014.

Economic Survey of Haryana (2013-14), Issued by Department of Economic and Statistical Analysis Haryana, Government of Haryana, Assessed on 22 December, 2014.

Gera, Komal Amit (2014), 'Haryana to Raise Budget Allocation for Health Sector', Business Standard (December 09, 2014), Assessed on 22 December, 2014.

Narayan, L. (2011) Some Aspect of Inter – District Disparities in Haryana, *RMS Journal of Management*, Special Issue: 158-168.

Government of Haryana (2019) *Statistical Abstract of Haryana 2017-18*, Department of Economic and Statistical Analysis, Haryana.

Gupta, K. (2015). A study of inter-district disparities in health infrastructure in Haryana, India. *Garg, Ishu and Gupta, Karnika (2015), "A Study of Inter-District Disparities in Health Infrastructure in Haryana, India", International Journal of Education and Management Studies*, 5(1), 23.

Panmei, L. R. (2013). Spatial disparities of health care facilities in Manipur.

Gupta, A. (2012). Magnitude of urban health disparity in Uttar Pradesh. *Asia Pacific Journal of Social Sciences*, 4(2), 108-124.

Appendix- I

Districts	H ₁	H ₂	H ₃	H ₄	H ₅
Ambala	159	1968293	505	902	149
Bhiwani	250	1983781	820	1409	130
Faridabad	92	1278647	328	459	93
Fatehabad	187	967088	364	547	61
Gurugram	122	1684295	398	690	129
Hisar	302	2106451	708	1144	134
Jhajjar	205	1457925	430	873	159
Jind	248	1451118	434	1042	104
Kaithal	200	1247720	349	529	80
Karnal	234	1575127	320	855	118
Kurukshetra	172	1655230	329	605	87
Mahendragarh	201	1205956	355	1155	123
Nuh	190	705588	227	497	65
Palwal	144	941868	171	53	96
Panchkula	107	1921210	429	737	146
Panipat	148	1001361	217	459	98
Rewari	170	1069614	442	154	103
Rohtak	193	1418691	356	782	167
Sirsa	235	1284904	400	539	127
Sonipat	255	1539337	366	880	134
Yamunanagar	174	1601820	407	757	100

Source: Statistical Abstract of Haryana (2015-16).

Health Development Indicators

H₁ = Total Number of Institutions

H₂ = Total Number of Patient Treated

H₃ = Total Number of Beds

H₄ = Total Number of Staff

H₅ = Total Number of Doctors

*Total Number of Institutions = Number of Allopathic Institutions (Hospitals + CHCs + PHCs + SCs + Dispensaries) + Number of AYUSH Institutions.

*Total Number of Patient Treated = Total Number of patients treated in (Allopathic Institutions + AYUSH Institutions).

*Total Number of Beds = Total Number of Beds in Allopathic Institutions.

*Total Number of Staff = Total Number of Staff available in (Allopathic Institutions + AYUSH Institutions).

*Total Number of Doctors = Total Number of Doctors available in (Allopathic Institutions + AYUSH Institutions).

*SC (Sub-Centre) is a health care institution for a population of 3,000-5,000.

*PHC (Primary Health Centre) is a health care institution for a population of 20,000 – 30,000.

*CHC (Community Health Centre) as referral centre for every four PHCs covering a population of 80,000 to 1.2 lakh.

Appendix-II

Districts	D ₁	D ₂	D ₃
Ambala	40.2	96.1	97.4
Bhiwani	17.8	87.2	66.1
Faridabad	9.9	72	46.3
Fatehabad	29	91.2	87.6
Gurugram	13.3	74.2	23.6
Hisar	9.4	90.8	75.3
Jhajjar	16.3	86.9	50

Jind	25.5	92.9	89
Kaithal	33.9	83.6	90.5
Karnal	39.6	92.7	91
Kurukshetra	22.4	91.4	88.2
Mahendragarh	15.1	96.8	73
Nuh	2.3	37.6	13.1
Palwal	1.7	56.2	25.3
Panchkula	47.8	96.5	96.9
Panipat	16.1	78.2	68.4
Rewari	7.5	90.2	41.2
Rohtak	14	86.3	64.1
Sirsa	25.2	85.1	75.2
Sonipat	13.7	83.7	64.1
Yamunanagar	49.8	94.4	87.9

Source: NFHS-4 (2015-16).

Service Delivery Indicators

D₁ = Full ANC

D₂ = Institutional Delivery

D₃ = Full Immunization

*Full ANC (Antenatal Care) is at least four antenatal visits, at least one tetanus toxoid (TT) injection and iron folic acid tablets or syrup taken for 100 or more days.

*Full Immunization - A child can be defined as fully immunized if they have received a Bacillus Calmette-Guerin (BCG) vaccination; three doses of the Diphtheria, Pertussis, and Tetanus (DPT) vaccine; three doses of the polio vaccine; and a measles vaccine within the age of (12-23) months.

*Institutional delivery is a delivery that takes place at any medical facility staffed by skilled delivery assistance.