



## My Views on NITI Aayog: Health Index 2019-20

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### Background

Ever since the Planning Commission is renamed as *The National Institutions for Transforming India (NITI) Aayog* it used to compute and disseminate a variety of state-specific indices which includes one each for Education, Health, Water, and Sustainable Development (SDG) Goals. On the one hand, the education index, namely *School Education Quality Index (SEQI)* is the latest available for the year 2016-17; on the other hand, the SDG index is available for 2020-21. The recently launched (December 2021), **Healthy States, Progressive India: Health Round IV** is the latest available for 2019-20. The available indices help know the status of a state-viz-a-viz other states concerning SDG, health, and education but the indices are of little use to use as an input to ongoing annual plan formulation exercises. For example, the SEQI (also performance Grading Index for 2019-20) is the latest available for the year 2016-17, the same is not possible to use while formulating annual plans the process of 2022-23 under *Samagra Shiksha* is being initiated soon. Most of the indicators used in Health Index: 2019-20 are of the year 2018-19 or even 2015-16 in case of few indicators. NITI Aayog must also intervene to ensure that the data required in computing an index in a year must be available for the same year for which an index is being computed. The time lag in school education data has recently been widened as the same is latest available for the year 2019-20 (as of January 2021).

While observations on School Education Quality Index (SEQI), Performance Grading Index (PGI), and Sustainable Development Goals (SDG) are separately been documented, in this note we focus more on the **Health Round IV Index: 2019-20**. The Health Index of the first three rounds is available for years, 2014-15, 2015-16, and 2016-17 respectively. In addition, SDG3: Health Index has also been looked into.

- [Observations on Report on SDG 4 \(3.0\): Quality Education \(2020-21\)](#)
- [Performance Grading Index: Observations by Arun C Mehta](#)
- [School Education Quality Index \(SEQI\): Observations by Arun C Mehta](#)

It may be observed that the authorship of the **Health Round IV Index: 2019-20** Report is **The World Bank** which is duly acknowledged in its Foreword by the *Chief Executive Officer* of NITI Aayog which contributed from the development of Health Index to analysis and even report writing. On the other hand, the data validation task was handled by one of the other private partners, and data was supplied by the states. One fails to get the idea about the involvement of national-level institutions in the entire process of index computation to analysis in the absence of which each time we compute index will be required to look at the

international agencies. Neither the national level government institutions, such as IIPS, Mumbai, and Institute of Health and Family Welfare nor anyone from the NITI Aayog is engaged in analysis and report writing of Health Index IV: 2019-20. Rather the time has come that we build up the capacity building of our institutions and officers engaged in managing health services both at the state, district, and lower levels. None of the indices is computed below the state level in the absence of which the same is not likely to be adequately used in plan formulation. Rather, for example, PGI the responsibility to compute district-specific index is entrusted to states which in most of the cases has not been undertaken and a few those who computed PGI (for 2019-20) was not available at the time of plan formulation; thus remain only a cosmetic exercise meaning lost the basic purpose of computing such indices.

## **Health Index**

The basic purpose of computing health index is to create healthy competition among states to improve its index value and rank which would eventually also help states to learn from each other. The highest index value a state can have is 100. It is envisaged that the healthy competition between states would help India move towards achieving health-related sustainable development goals. A set of 24 indicators falling under the domains (i) health outcomes (11 indicators), governance & information (4 indicators), and key inputs & processes (9 indicators) have been used in computing Health Index IV: 2019-20. Two sub-domains each of the first two domains and one sub-domain of the third domain have been used. Given the nature of a variable, only 18 indicators have been used in the case of smaller states and 15 in the case of union territories as against the use of all the 24 indicators in the case of larger states. Each domain was assigned weights which also vary from larger states to smaller states and union territories. On the other hand, SDG 3: Good Health & Well-being, 2020-21 used a set of 10 indicators which are used irrespective of whether a state is the smaller or larger one and a target is set in case of each of the 10 indicators to achieve by the year 2030.

## **The Present Article**

Given the size of a state and whether it is a state or a union territory, indicators have been used in computing an index, and accordingly, weights have been assigned irrespective of the type of index. Given this, in the present note, all the States & UTs have been listed together and their performance both in terms of its rank and index value as well as an incremental value between two rounds of an index has been analyzed. Barring SDG, West Bengal has not participated in education as well as health index. Daman & Diu and Dadar & Nagar Haveli have been clubbed together.

Table 1 presents the health index for the years 2018-19 and 2019-20 along with the corresponding ranks and the incremental change in 2019-20 over the previous index i.e. 2018-19. The table also presents state-specific SDG3: Health Index, 2020-21 with ranks. As has already been mentioned above 2019-20 is the latest available health index and SDG3 Health is available for the year 2020-21 but most of the indicators used in computing these indices do not relate to the year for which they are computed. In the light of these observations, the status of health does not present the current status of health of India as there may be further improvement during the intervening period. Further Table 2 presents states in ascending order as per its rank in Health Index: 2019-20. In addition, the change in the incremental value over the previous index has also been ranked which helps in assessing

states those who have improved rapidly given their index value during the same in 2018-19 viz-a-viz other states.

**Table 1: Health Index IV: 2019-20 and SDG3: Health, 2020-21**

| State/UT           | Health Index |      |         |      | Incremental Change |      | SDG 2020-21 |      |
|--------------------|--------------|------|---------|------|--------------------|------|-------------|------|
|                    | 2018-19      | Rank | 2019-20 | Rank | 2018-19 to 2019-20 | Rank | Health      | Rank |
| Andamand & Nicobar | 44.59        | 20   | 44.74   | 25   | 0.15               | 22   | 68          | 25   |
| Andhra Pradesh     | 68.88        | 7    | 69.95   | 6    | 1.07               | 17   | 77          | 13   |
| Arunachal Pradesh  | 35.45        | 30   | 33.92   | 32   | -1.53              | 30   | 64          | 30   |
| Assam              | 43.39        | 25   | 47.74   | 22   | 4.35               | 7    | 59          | 35   |
| Bihar              | 30.24        | 32   | 31.00   | 33   | 0.76               | 18   | 66          | 29   |
| Chandigarh         | 73.38        | 2    | 62.53   | 12   | -10.85             | 34   | 74          | 14   |
| Chhattisgarh       | 50.79        | 17   | 50.70   | 19   | -0.09              | 25   | 70          | 21   |
| D & D              | 69.72        | 5    | 66.20   | 8    | -3.52              | 31   | 80          | 5    |
| D&N                | 69.72        | 6    | 66.20   | 9    | -3.52              | 32   | 80          | 6    |
| Delhi              | 40.17        | 27   | 49.84   | 20   | 9.67               | 3    | 90          | 1    |
| Goa                | 66.36        | 8    | 53.68   | 16   | -12.68             | 35   | 72          | 17   |
| Gujarat            | 62.46        | 12   | 63.59   | 10   | 1.13               | 16   | 86          | 2    |
| Haryana            | 49.81        | 18   | 49.26   | 21   | -0.55              | 27   | 72          | 18   |
| Himachal pradesh   | 63.23        | 11   | 63.17   | 11   | -0.06              | 24   | 78          | 8    |
| Jammu & Kashmir    | 37.45        | 29   | 46.99   | 24   | 9.54               | 4    | 70          | 22   |
| Jharkhand          | 44.16        | 23   | 47.55   | 23   | 3.39               | 11   | 74          | 15   |
| Karnataka          | 59.30        | 13   | 57.93   | 14   | -1.37              | 29   | 78          | 9    |
| Kerala             | 81.60        | 1    | 82.20   | 1    | 0.60               | 19   | 72          | 16   |
| Lakshadweep        | 44.16        | 22   | 51.87   | 17   | 7.71               | 5    | 78          | 10   |
| Madhya Pradesh     | 33.37        | 31   | 36.72   | 30   | 3.35               | 12   | 62          | 32   |
| Maharashtra        | 65.54        | 10   | 69.14   | 7    | 3.60               | 9    | 83          | 3    |
| Manipur            | 39.99        | 28   | 34.26   | 31   | -5.73              | 33   | 68          | 24   |
| Mehgalaya          | 25.35        | 33   | 43.05   | 28   | 17.70              | 2    | 70          | 23   |
| Mizoram            | 57.32        | 14   | 75.77   | 2    | 18.45              | 1    | 79          | 7    |
| Nagaland           | 23.57        | 35   | 27.00   | 35   | 3.43               | 10   | 61          | 33   |
| Odisha             | 44.18        | 21   | 44.31   | 26   | 0.13               | 23   | 67          | 27   |
| Puducherry         | 49.26        | 19   | 50.83   | 18   | 1.57               | 15   | 70          | 19   |
| Punjab             | 56.33        | 15   | 58.08   | 13   | 1.75               | 13   | 77          | 12   |
| Rajasthan          | 41.57        | 26   | 41.33   | 29   | -0.24              | 26   | 70          | 20   |
| Sikkim             | 56.25        | 16   | 55.53   | 15   | -0.72              | 28   | 62          | 31   |
| Tamilnadu          | 70.79        | 3    | 72.42   | 3    | 1.63               | 14   | 81          | 4    |
| Telangana          | 65.74        | 9    | 69.96   | 5    | 4.22               | 8    | 67          | 26   |
| Tripura            | 69.96        | 4    | 70.16   | 4    | 0.20               | 21   | 67          | 28   |
| Uttar Pradesh      | 25.06        | 34   | 30.57   | 34   | 5.51               | 6    | 60          | 34   |
| Uttarakhand        | 43.62        | 24   | 44.21   | 27   | 0.59               | 20   | 77          | 11   |

Source: Health Index 2019-20 and SDG Index 2020-21, NITI Aayog. West Bengal did not participate in Health Index 2019-20 and data of Ladakh was not available.

**Table 2: Health Index IV: 2019-20 and SDG3: Health, 2020-21  
Ranked As per 2019-20 Index**

| State/UT           | Health Index |      |         |      | Incremental Change |      | SDG 2020-21 |      |
|--------------------|--------------|------|---------|------|--------------------|------|-------------|------|
|                    | 2018-19      | Rank | 2019-20 | Rank | 2018-19 to 2019-20 | Rank | Health      | Rank |
| Kerala             | 81.60        | 1    | 82.20   | 1    | 0.60               | 19   | 72          | 16   |
| Mizoram            | 57.32        | 14   | 75.77   | 2    | 18.45              | 1    | 79          | 7    |
| Tamilnadu          | 70.79        | 3    | 72.42   | 3    | 1.63               | 14   | 81          | 4    |
| Tripura            | 69.96        | 4    | 70.16   | 4    | 0.20               | 21   | 67          | 28   |
| Telangana          | 65.74        | 9    | 69.96   | 5    | 4.22               | 8    | 67          | 26   |
| Andhra Pradesh     | 68.88        | 7    | 69.95   | 6    | 1.07               | 17   | 77          | 13   |
| Maharashtra        | 65.54        | 10   | 69.14   | 7    | 3.60               | 9    | 83          | 3    |
| D & D              | 69.72        | 5    | 66.20   | 8.5  | -3.52              | 31   | 80          | 5.5  |
| D&N                | 69.72        | 6    | 66.20   | 8.5  | -3.52              | 32   | 80          | 5.5  |
| Gujarat            | 62.46        | 12   | 63.59   | 10   | 1.13               | 16   | 86          | 2    |
| Himachal pradesh   | 63.23        | 11   | 63.17   | 11   | -0.06              | 24   | 78          | 8    |
| Chandigarh         | 73.38        | 2    | 62.53   | 12   | -10.85             | 34   | 74          | 14   |
| Punjab             | 56.33        | 15   | 58.08   | 13   | 1.75               | 13   | 77          | 12   |
| Karnataka          | 59.30        | 13   | 57.93   | 14   | -1.37              | 29   | 78          | 9    |
| Sikkim             | 56.25        | 16   | 55.53   | 15   | -0.72              | 28   | 62          | 31   |
| Goa                | 66.36        | 8    | 53.68   | 16   | -12.68             | 35   | 72          | 17   |
| Lakshadweep        | 44.16        | 22   | 51.87   | 17   | 7.71               | 5    | 78          | 10   |
| Puducherry         | 49.26        | 19   | 50.83   | 18   | 1.57               | 15   | 70          | 19   |
| Chhattisgarh       | 50.79        | 17   | 50.70   | 19   | -0.09              | 25   | 70          | 21   |
| Delhi              | 40.17        | 27   | 49.84   | 20   | 9.67               | 3    | 90          | 1    |
| Haryana            | 49.81        | 18   | 49.26   | 21   | -0.55              | 27   | 72          | 18   |
| Assam              | 43.39        | 25   | 47.74   | 22   | 4.35               | 7    | 59          | 35   |
| Jharkhand          | 44.16        | 23   | 47.55   | 23   | 3.39               | 11   | 74          | 15   |
| Jammu & Kashmir    | 37.45        | 29   | 46.99   | 24   | 9.54               | 4    | 70          | 22   |
| Andamand & Nicobar | 44.59        | 20   | 44.74   | 25   | 0.15               | 22   | 68          | 25   |
| Odisha             | 44.18        | 21   | 44.31   | 26   | 0.13               | 23   | 67          | 27   |
| Uttarakhand        | 43.62        | 24   | 44.21   | 27   | 0.59               | 20   | 77          | 11   |
| Mehgalaya          | 25.35        | 33   | 43.05   | 28   | 17.70              | 2    | 70          | 23   |
| Rajasthan          | 41.57        | 26   | 41.33   | 29   | -0.24              | 26   | 70          | 20   |
| Madhya Pradesh     | 33.37        | 31   | 36.72   | 30   | 3.35               | 12   | 62          | 32   |
| Manipur            | 39.99        | 28   | 34.26   | 31   | -5.73              | 33   | 68          | 24   |
| Arunachal Pradesh  | 35.45        | 30   | 33.92   | 32   | -1.53              | 30   | 64          | 30   |
| Bihar              | 30.24        | 32   | 31.00   | 33   | 0.76               | 18   | 66          | 29   |
| Uttar Pradesh      | 25.06        | 34   | 30.57   | 34   | 5.51               | 6    | 60          | 34   |
| Nagaland           | 23.57        | 35   | 27.00   | 35   | 3.43               | 10   | 61          | 33   |

Source: Health Index 2019-20 and SDG Index 2020-21, NITI Aayog. West Bengal did not participate in Health Index 2019-20 and data of Ladakh was not available.

## Health Index 2019-20

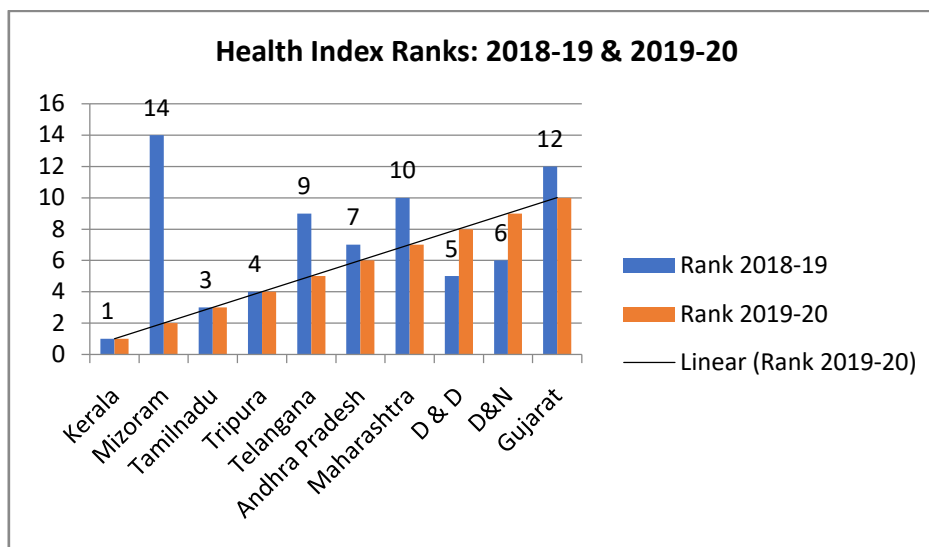
A cursory look at Table 1 one gets the impression that the gap between the highest and lowest index value in 2019-20 has slightly declined to 55.20 as compared to the same in the previous index i.e. 2018-19 from 58.03 which suggests that the health conditions have improved a bit in the country during the intervening period; however, still, the gap between the two is wide; thus indicating widespread further improvement. No doubt that the low-ranked states need significant improvement in health facilities but that doesn't mean that the higher-ranked states don't need improvement as their index values are still far from perfect; with 82.20 being the highest in the 2019-20 index.

The state-specific ranks further reveal that all the states couldn't maintain their rank in 2019-20 a few of them lost to other states which means a few others have improved their position. So far as the bottom-ranked states in 2019-20 are concerned most of them could maintain their ranks with Nagaland being on the bottom (rank 35, index 23.57) followed by Uttar Pradesh (rank 34, index 30.57). One of the other bottom-ranked states, namely Bihar further lost its rank in 2019-20 and is placed at 33 with the index value 31; however, its index value in 2019-20 has slightly improved to 31 from 30.24 in 2018-19 which may be considered a marginal improvement. Two of the other bottom-ranked states, namely Manipur and Arunachal Pradesh not only lost their ranks but even their index values have also declined over the previous year; maybe a cause of concern but are not the only states whose index values have declined there are quite a few other such states amongst which Karnataka, Sikkim, Goa, and Chandigarh are worth to mention. On the other hand, index values of the majority of other states have further improved in 2019-20 over the previous year amongst which the state of Uttar Pradesh in larger states is worth mentioning which has increased to 30.57 in 2019-20 from 25.06 in the previous year; thus showing improvement by almost 6 points. It would be of interest to have a glance at indicators/domains used in the computing index in 2019-20 in Uttar Pradesh. Like Uttar Pradesh, there are a few other states whose index values have increased in 2019-20; even more rapidly than Uttar Pradesh which is separately been discussed. Let us first have a look at the top-ranked states.

### The Top-Ranked States

A look at Table 1 further reveals that out of the top ten ranked states only three states, namely Kerala (1<sup>st</sup> rank, 82.20), Tamilnadu (3<sup>rd</sup> rank, 72.42), and Tripura (4<sup>th</sup> rank, 70.16) could maintain their first, third and fourth rank in 2019-20 health index and another five states, namely Mizoram (14<sup>th</sup> to 2<sup>nd</sup> rank), Telangana (9<sup>th</sup> to 5<sup>th</sup> rank), Andhra Pradesh (7<sup>th</sup> to 6<sup>th</sup> rank), Maharashtra (10<sup>th</sup> to 7<sup>th</sup> rank) and Gujarat (12<sup>th</sup> to 10<sup>th</sup> rank) could improve their rank in 2019-20. The two states amongst the first ten high-ranked states, namely Dadar & Nagar Haveli (5<sup>th</sup> rank) and Daman & Diu (6<sup>th</sup> rank) couldn't maintain their ranks in 2019-20. In the rest of the states, a few states have improved their ranks but the same is not true for all the states. However, a state like Himachal Pradesh (11<sup>th</sup> Rank, 63.17) despite a slight decline in index value could maintain its 11<sup>th</sup> rank. One other such state is Jharkhand (23<sup>rd</sup> rank, 47.55 from 44.16 in 2018-19) which could also maintain its rank in 2019-20. In the rest of the states, a few such as Chandigarh (2<sup>nd</sup> to 12<sup>th</sup> rank in 2019-20), Goa (8<sup>th</sup> to 16<sup>th</sup> rank), Haryana (18<sup>th</sup> to 21<sup>st</sup> rank), Odisha (21<sup>st</sup> to 26<sup>th</sup> rank), Uttarakhand (24<sup>th</sup> to 27<sup>th</sup> rank) and Rajasthan (26<sup>th</sup> to 29<sup>th</sup> rank) not only couldn't maintain their ranks but their index values have also declined or remained stagnant.

It may be further observed that two of the major states, namely Maharashtra (from 10<sup>th</sup> to 7<sup>th</sup> rank in 2019-20 with index value 69.14) and Madhya Pradesh (from 31<sup>st</sup> to 30<sup>th</sup> rank with index value 36.72) could improve both their rank as well as index values in 2019-20. One of



**Table 3: Status of Health Index & Rank: 2019-20 over 2018-19**

| Improved Rank                                 | Retained Rank                            | Declined Rank  |
|---|--|--|
| 1. Andhra Pradesh: 7 to 6 (68.88 to 69.95)    | 1. Himachal Pradesh: 11 (63.23 to 63.17) | 1. A & N: 20 to 25 (44.59 to 44.74)                              |
| 2. Assam: 25 to 22 (43.39 to 47.74)           | 2. Jharkhand: 23 (44.16 to 47.55)        | 2. Arunachal Pradesh: 30 to 32 (35.45 to 33.92)                  |
| 3. Delhi: 27 to 20 (40.17 to 49.84)           | 3. Kerala: 1 (81.60 to 82.20)            | 3. Bihar: 32 to 33 (30.24 to 31.00)                              |
| 4. Gujarat: 12 to 10 (62.46 to 63.59)         | 4. Nagaland: 35 (23.57 to 27.00)         | 4. Chandigarh: 2 to 12 (73.38 to 62.53)                          |
| 5. Jammu & Kashmir: 29 to 24 (37.45 to 46.99) | 5. Tamilnadu: 3 (70.79 to 72.42)         | 5. Chhattisgarh: 17 to 19 (50.79 to 50.70)                       |
| 6. Lakshadweep: 22 to 17 (44.16 to 52.87)     | 6. Tripura: 4 (69.06 to 70.16)           | 6. Dadra & Nagar Haveli & Daman & Diu: 5 to 8.5 (69.72 to 66.20) |
| 7. Madhya Pradesh: 31 to 30 (33.37 to 36.72)  | 7. Uttar Pradesh: 34 (25.06 to 30.57)    | 7. Goa: 8 to 16 (66.36 to 53.68)                                 |
| 8. Maharashtra: 10 to 7 (65.54 to 69.14)      |  | 8. Haryana: 18 to 21 (49.81 to 49.26)                            |
| 9. Meghalaya: 33 to 28 (25.35 to 43.05)       |  | 9. Karnataka: 13 to 14 (59.30 to 57.93)                          |
| 10. Mizoram: 14 to 2 (57.32 to 75.77)         |  | 10. Manipur: 28 to 31 (39.99 to 34.26)                           |
| 11. Puducherry: 19 to 18 (49.26 to 50.83)     |  | 11. Odisha: 21 to 26 (44.18 to 44.31)                            |
| 12. Punjab: 15 to 13 (56.33 to 58.08)         |  | 12. Rajasthan: 26 to 29 (41.57 to 41.33)                         |
| 13. Sikkim: 16 to 15 (56.25 to 55.53)         |  | 13. Uttarakhand: 24 to 27 (43.62 to 44.21)                       |
| 14. Telangana: 9 to 5 (65.74 to 69.96)        |  |  |
| <b>Index Value Declined</b>                   |  | <b>Index Value Improved</b>                                      |
| Sikkim (-0.72)                                |  | Bihar (+0.76)  |
| Himachal Pradesh (-0.06)                      |  | Uttarakhand (+0.59)  |
|   |  | Andaman & Nicobar Islands (+0.15)                                |
|   |  | Odisha (+0.13)   |

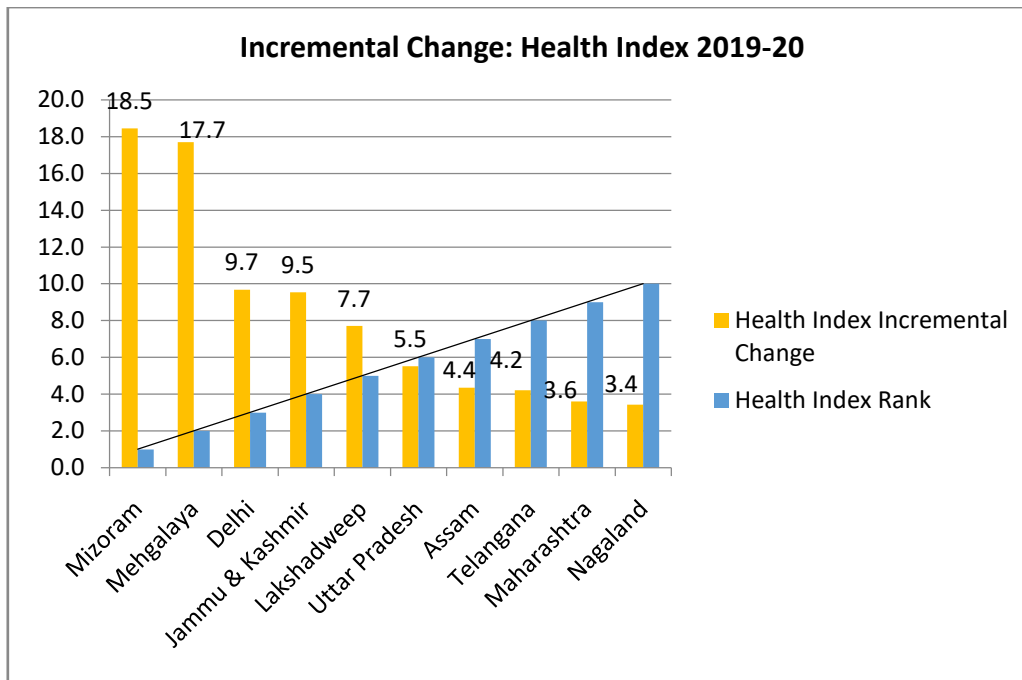
the other states, namely Delhi though a small state but important one has impressively improved its rank from 27<sup>th</sup> to 20<sup>th</sup> in 2019-20 with an index value of 49.84; thus showing an impressive improvement in its index value during the intervening period but still has a lot more scope to further improve and the difference between its index value and top-ranked Kerala is significantly high at 32.36 points. Further, it may be observed that more than the ranks, index value, and incremental value during the intervening period i.e. 2018-19 to 2019-20 is important because of which in the next section we look at the same.

### **Incremental Change in Index Value**

Incremental change in the index values in 2019-20 over the previous health index 2018-19 presented in the Table 4 reveals that states not only improved their index values during the intervening period but in the case of a few states the same has gone down which resulted in the loss of their ranks thus indicating the health of the state further deteriorated. In the case of at least 12 states, the index value in the latest 2019-20 health index has gone down which includes both the larger as well as the smaller states. However, the highest decline in incremental value is observed in smaller states, such as Goa (-12.68), Chandigarh (-10.85), Manipur (-5.73), Dadra & Nagar Haveli and Daman & Diu (-3.52), and Arunachal Pradesh (-1.53). The decline in these states is significant especially since indicators used in computing health index 2018-19 and 2019-20 are by and large almost the same.

It is also a fact that the pace of improvement in index value in high-ranked states is likely to be slow as their value is already on the higher side but the same may still not be perfect. On the other hand scope of the rapid increase in index value is quite possible in the states having low or the lowest values which are also reflected in the incremental values presented in Table 4. The first 10 states show high incremental values most of which have had low ranks in 2018-19 which varies from 35<sup>th</sup> rank in the case of Nagaland to 9<sup>th</sup> ranked Telangana but their incremental ranks are placed from first to tenth place. Mizoram (18.45), Meghalaya (17.70), Delhi (9.67), Jammu & Kashmir (9.54), Lakshadweep (7.71), and Uttar Pradesh (5.51) have experienced high to very high incremental index values in 2019-20 which further shows that most of these states are small in size except Jammu & Kashmir and Uttar Pradesh. Uttar Pradesh not only fared well in the overall health index 2019-20 but it has also fared well in individual domains used in the computing index; its incremental value in the case of health outcomes stands at 6.39 with 9<sup>th</sup> rank and key-inputs/processes domain at 4.27 with 11<sup>th</sup> rank; however, its improvement given incremental value in the case of governance & information domain was low at 2.44 with overall 16<sup>th</sup> rank.

The top-ranked Kerala which has maintained its overall index and rank all through the first health index computed in 2015-16 to the present 2019-20 has further improved its index in two out of three domains, namely governance (6.80 with 7<sup>th</sup> rank) and key outputs/processes (1.78 with 17<sup>th</sup> rank) domains. However, it couldn't further improve its index in the case of health outcomes domain and declined by -0.84 with 20<sup>th</sup> rank. Further, it has also been observed that even though the overall rank and index value of a state has improved in 2019-20 from its previous value in 2018-19 but the improvement is not across the three domains used in computing the health index. For example, Delhi which is improved to 7<sup>th</sup> rank in 2019-20 from 27<sup>th</sup> in 2018-19 with an incremental value of 9.67 (3<sup>rd</sup> highest) couldn't maintain its pace in two out of the three domains. However, its incremental value in the case of the health outcomes domain was of the tune of 18.89 with 2<sup>nd</sup> rank across the country.



### Incremental Change by Domain

The incremental change presented in Table 4 further reveals that there are only six states those who could maintain improvement in all the three domains of which Bihar and Jammu & Kashmir are two such states worth mentioning apart from Uttar Pradesh which has already been described above. Bihar still has an overall rank at 33 in 2019-20 but its incremental change with 0.76 stands at 18<sup>th</sup>. Individual domains too have maintained their position around 18; thus showing consistent improvement across the three domains. The other impressive state is Jammu & Kashmir which has improved its overall rank from 29<sup>th</sup> in 2018-19 to 24 in 2019-20 which is also reflected in its incremental change at 9.54 which is the 4<sup>th</sup> highest across all the states. So far as the individual domain is considered, Jammu & Kashmir has achieved a high incremental value of 11.99 with 4<sup>th</sup> rank in the case of health outcomes, 10 with 4<sup>th</sup> rank in the case of governance & information domain as compared to 5.53 with 7<sup>th</sup> rank in the case of key inputs domain; thus showing consistent improvement across all the three domains used in computing health 2019-20 index. However, the steal performer is observed to be Mizoram (health index 75.77 with 2<sup>nd</sup> rank in 2019-20) though small in size but has impressively improved its rank from 14<sup>th</sup> in 2018-19 to 2<sup>nd</sup> in 2019-20 with the highest overall incremental value of 18.43 which is also reflected in the individual domain values all three of which have shown increased by more than 10 points two of which are also the highest across the county. On the one hand, the governance & information domain is increased by a hoping 43.72 against 15.66 in the case of the health outcomes and 10.32 with 3<sup>rd</sup> rank in the case of key inputs domain. Mizoram is followed by one of the other states from the north-eastern states, namely Meghalaya which is with 17.70 increase in the incremental value stands 2<sup>nd</sup> highest across the country which is also reflected in two of the three domains; 25.29 with 1<sup>st</sup> rank in the case of health outcomes and 10.40 with 2<sup>nd</sup> rank in the case of key inputs domain; however its incremental value in the case of governance & information domain is low at 1.14 with 16<sup>th</sup> rank. Meghalaya is followed by another one of the small states, namely Delhi with an overall incremental value of 9.67 with 3<sup>rd</sup> rank. Further, it has been observed that 5 out of the first 10 ranked states in the case of the incremental values in the health index are smaller in the size but like other states, these states

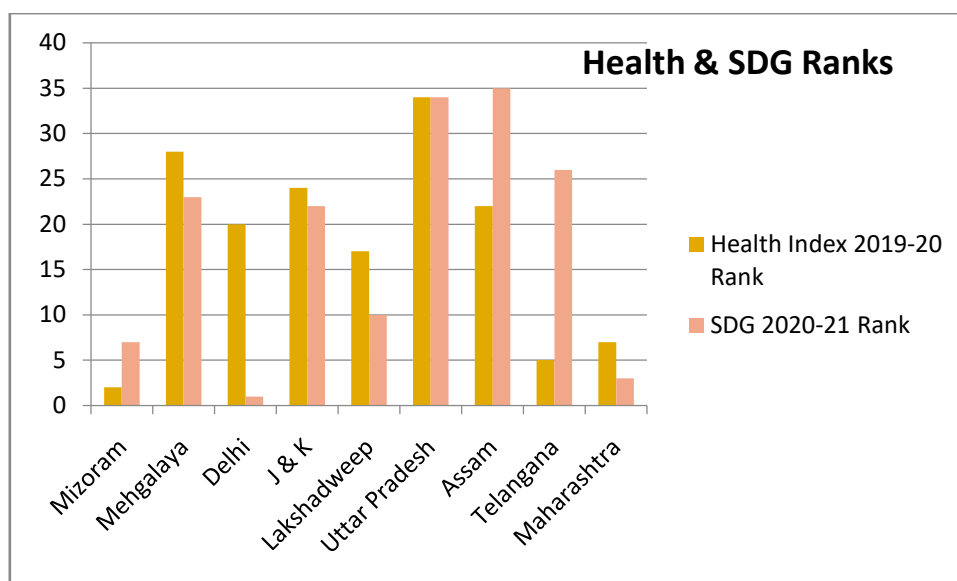


**Table 4: Incremental Change by Domain: Health Index 2019-20**

| State/UT          | Rank 2018-19 | Rank 2019-20 | Change in Rank | Incremental Change | Rank | Incremental Change by Domain |      |                          |      |            |      |
|-------------------|--------------|--------------|----------------|--------------------|------|------------------------------|------|--------------------------|------|------------|------|
|                   |              |              |                |                    |      | Health Outcomes              | Rank | Governance & Information | Rank | Key Inputs | Rank |
| Mizoram           | 14           | 2            | 12             | 18.45              | 1    | 15.66                        | 3    | 43.72                    | 1    | 10.32      | 3    |
| Mehgalaya         | 33           | 28           | 5              | 17.70              | 2    | 25.29                        | 1    | 1.14                     | 16   | 10.40      | 2    |
| Delhi             | 27           | 20           | 7              | 9.67               | 3    | 18.89                        | 2    | -0.93                    | 19   | -0.75      | 26   |
| Jammu & Kashmir   | 29           | 24           | 5              | 9.54               | 4    | 11.99                        | 4    | 10.00                    | 4    | 5.53       | 7    |
| Lakshadweep       | 22           | 17           | 5              | 7.71               | 5    | -4.17                        | 30   | 67.8*                    | -    | 3.74       | 13   |
| Uttar Pradesh     | 34           | 34           | 0              | 5.51               | 6    | 6.39                         | 9    | 2.44                     | 15   | 4.27       | 11   |
| Assam             | 25           | 22           | 3              | 4.35               | 7    | 7.11                         | 6    | 8.17                     | 5    | -10.14     | 34   |
| Telangana         | 9            | 5            | 4              | 4.22               | 8    | 6.58                         | 8    | -8.88                    | 31   | 5.03       | 9    |
| Maharashtra       | 10           | 7            | 3              | 3.60               | 9    | 3.86                         | 11   | 4.11                     | 13   | 2.10       | 15   |
| Nagaland          | 35           | 35           | 0              | 3.43               | 10   | 6.59                         | 7    | -1.57                    | 20   | -0.68      | 25   |
| Jharkhand         | 23           | 23           | 0              | 3.39               | 11   | 5.23                         | 10   | 0.46                     | 17   | -2.06      | 27   |
| Madhya Pradesh    | 31           | 30           | 1              | 3.35               | 12   | 1.28                         | 17   | -3.84                    | 22   | 17.53      | 1    |
| Punjab            | 15           | 13           | 2              | 1.75               | 13   | 2.30                         | 13   | 5.61                     | 9    | -3.56      | 31   |
| Tamilnadu         | 3            | 3            | 0              | 1.63               | 14   | 2.05                         | 15   | -7.35                    | 27   | 6.88       | 4    |
| Puducherry        | 19           | 18           | 1              | 1.57               | 15   | -7.86                        | 32   | 27.22                    | 2    | 6.69       | 5    |
| Gujarat           | 12           | 10           | 2              | 1.13               | 16   | 2.38                         | 12   | -6.04                    | 26   | 1.51       | 18   |
| Andhra Pradesh    | 7            | 6            | 1              | 1.07               | 17   | 1.96                         | 16   | -4.72                    | 24   | 1.88       | 16   |
| Bihar             | 32           | 33           | -1             | 0.76               | 18   | 0.89                         | 19   | 0.28                     | 18   | 0.58       | 21   |
| Kerala            | 1            | 1            | 0              | 0.60               | 19   | -0.84                        | 20   | 6.80                     | 6    | 1.78       | 17   |
| Uttarakhand       | 24           | 27           | -3             | 0.59               | 20   | -1.15                        | 25   | 4.40                     | 12   | 4.84       | 10   |
| Tripura           | 4            | 4            | 0              | 0.20               | 21   | 8.41                         | 5    | -30.36                   | 34   | -0.60      | 24   |
| Andaman & Nicobar | 20           | 25           | -5             | 0.15               | 22   | 1.19                         | 18   | -4.78                    | 25   | 0.38       | 22   |
| Odisha            | 21           | 26           | -5             | 0.13               | 23   | -0.69                        | 24   | 4.50                     | 11   | 0.17       | 23   |
| Himachal Pradesh  | 11           | 11           | 0              | -0.06              | 24   | 2.27                         | 14   | -18.01                   | 33   | 4.19       | 12   |
| Chhattisgarh      | 17           | 19           | -2             | -0.09              | 25   | -2.65                        | 27   | 6.52                     | 8    | 5.45       | 8    |
| Rajasthan         | 26           | 29           | -3             | -0.24              | 26   | 0.81                         | 21   | 3.24                     | 14   | -7.30      | 33   |
| Haryana           | 18           | 21           | -3             | -0.55              | 27   | 0.42                         | 22   | -7.59                    | 28   | 0.84       | 19   |
| Sikkim            | 16           | 15           | 1              | -0.72              | 28   | -0.01                        | 23   | 6.78                     | 7    | -6.48      | 32   |
| Karnataka         | 13           | 14           | -1             | -1.37              | 29   | -2.38                        | 26   | -1.66                    | 21   | 3.09       | 14   |
| Arunachal Pradesh | 30           | 32           | -2             | -1.53              | 30   | -4.22                        | 31   | 5.03                     | 10   | 0.65       | 20   |
| D & D             | 5.5          | 8.5          | -3             | -3.52              | 31.5 | -2.78                        | 28.5 | -8.50                    | 29.5 | -2.82      | 29.5 |
| D&N               | 6.5          | 9.5          | -3             | -3.52              | 31.5 | -2.78                        | 28.5 | -8.50                    | 29.5 | -2.82      | 29.5 |
| Manipur           | 28           | 31           | -3             | -5.73              | 33   | -12.23                       | 33   | 13.17                    | 3    | -2.13      | 28   |
| Chandigarh        | 2            | 12           | -10            | -10.85             | 34   | -12.23                       | 34   | -4.41                    | 23   | -11.11     | 35   |
| Goa               | 8            | 16           | -8             | -12.68             | 35   | -22.30                       | 35   | -8.89                    | 32   | 6.22       | 6    |

Source: Health Index 2019-20, NITI Aayog. \* Domain available only for 2019-20

too need further improvement in their overall health index and remain much lower than top-ranked Kerala (82.20, 1<sup>st</sup> rank). One of the other smaller states, namely Tripura also has a high health index of 72.42 with an overall 3<sup>rd</sup> rank but its incremental value remains low at 0.20 with 21<sup>st</sup> rank and two of the three domains didn't show improvement during the intervening period.



**Table 5: Indicators used in Health and SDG Goal 3 Health: Indices**

| Health Index 2019-20   | SDG Goal 3: Health Index 2020-21  |
|--|---|
| 1. Neonatal Mortality Rate (NMR)   | Maternal Mortality Ratio (per 1,00,000 live births)                         |
| 2a. Under-five Mortality Rate  | Under 5 mortality rate (per 1,000 live births)                              |
| 2b. Proportion of Low Birth Weight among newborns (infants)                      |   |
| 3. Full immunization coverage (%)  | Percentage of Children in the age-group 9-11 months Fully Immunized         |
| 4a. Total Case Notification Rate of Tuberculosis                                 | Total case notification rate of Tuberculosis per 1,00,000 population        |
| 4b. Treatment success rate of new microbiologically confirmed Tuberculosis cases |   |
| 5. Proportion of people living with HIV on antiretroviral therapy                | HIV incidence per 1,000 uninfected population                               |
| 6. Proportion of institutional deliveries  | Percentage of institutional deliveries out of the total deliveries reported |
| 7. Sex Ratio at Birth  | Suicide rate (per 1,00,000 population)                                      |
| 8. Total Fertility Rate  | Death rate due to road traffic accidents (per 1,00,000 population)          |
|  | Monthly Per capita Consumption Expenditure                                  |
|  | Total physicians, nurses, and midwives per 10,000 population                |

Source: Health Index 2019-20 and SDG Index 2020-21, NITI Aayog.

### Health Index 2019-20 Vs SDG3 Health Index 2020-21

Like state-specific Health Index, NITI Aayog is also used to compute SDG3: Health Index which is the latest available for the year 2020-21. The indicators used in computing these

indices are presented in Table 5. It may be observed that like Health Index 2019-20 and previous years, SDG3 Health Index is presented for all the states together and is not separately categorized for smaller and larger states. In addition to common indicators, both indices used additional indicators which is quite obvious given national and global requirements in addition to which indicators used do not belong to the same year because of which both may not necessarily be comparable. However, both fairly present the health of the country, state-specific.

A cursory look at both the indices indicate that the ranks of a few states are the same but wide-spread deviation is observed in the case of one of the high ranked states, such as Kerala. As against the 1<sup>st</sup> rank in the case of health index, the corresponding rank in the case of SDG3 health domain is 16<sup>th</sup>. Delhi is also one of such states showing a wide deviation in its rank between the two indices. Delhi stands 1<sup>st</sup> in the SDG3 health index compared to which it is ranked at 20<sup>th</sup> position in the case of health index. A slight variation in both the indices maybe because of indicators used as well as the year for which both the sets of indicators are considered in computing indices. On the other hand, as has already been specified the ranks of quite a few states almost perfectly match which includes both the high and low and bottom-placed states, such as Uttar Pradesh and Bihar. Tamilnadu, Chandigarh, Sikkim, Puducherry, Jammu & Kashmir, Andaman & Nicobar Islands, Odisha, Madhya Pradesh, etc. have almost the same rank in both sets of indices. Uttar Pradesh ranked at 34<sup>th</sup> place in both the indices as against the Bihar which ranked at 29<sup>th</sup> place in case of SDG3 health index against 33<sup>rd</sup> rank in the case of health index 2019-20. By and large, it seems that barring a few most of the other states have almost compatible ranks in both the indices which means that indicators used in both the indices could be able to capture the true picture of the health of the states which is also reflected in the correlation coefficient computed between two sets of indices state-wise which comes out to 0.57. Still, both the indices suggest a lot more improvement in health indicators which is true for all the states across the country. It is a general belief that better education if a state has would also have a better health condition and the correlation between health 2019-20 and SDG4 2020-21 education indices comes out to be positive (0.49).

### **Still, Miles to Go**

It may be further observed that out of 35 states covered in the analysis, 16 states including both small as well as large states still have not crossed halfway of the possible highest 100 value of the index, another 7 states have index value above 50 but below 60, 8 states between 60 to 70, 3 states between 70 to 80 and only one state, namely Kerala has the index value above 80 (82.20); thus indicating that a lot more efforts are required to further improve the health status which is true for all the states across the country.

The low index values as has already been mentioned above are also reflected in the individual domains which are presented in Table 4 which reveals that in each of the three domains a good number of states still have index value well below the possible best 100. Quite a few states have even lower index values in a domain even below 25; for example, Jharkhand has a low value of 20 in governance & information domain as against the value of 15.32 in the case of Bihar in key-inputs & processes domain both of which are the lowest domain values across the country. The highest value 89.29 in a domain could be observed in the case of the governance & information domain in Assam but it has very low values in the remaining two domains; thus suggesting miles to go to further improve the health of the state. Even the top-ranked state, namely Kerala still do not have comparable values across three domains; on the one hand, it has the highest value of 85.97 in the case of the health outcomes domain on the other hand its value in the case of key inputs & processes domain is low at 65.01 which is

**Table 6: Domain-specific Index Value distributed by Groups: 2019-20**

| Range    | Health Outcomes   | Governance & Information   | Key-Inputs & Processes   |
|----------|---|--|--|
| Up to 20 |   | Andaman & Nicobar Islands (12.90)<br>Chandigarh (11.32)<br>Jharkhand (20.00)<br>Nagaland (11.83)                                 | Bihar (15.32)  |
| 21 to 25 |   | J & K (20.81)  | Nagaland (24.62)<br>Jharkhand (23.16)<br>Manipur (23.46)   |
| 25 to 35 | Bihar (30.80)<br>Madhya Pradesh (34.55)<br>Nagaland (31.99)<br>Uttar Pradesh (25.64)  | Arunachal (26.77)  | Arunachal (34.09)<br>Lakshadweep (31.27)<br>Madhya Pradesh (34.11)<br>Sikkim (34.77)   |
| 35 to 40 | Arunachal (35.67)<br>Assam (39.53)<br>Manipur (38.52)<br>Rajasthan (35.01)  | Karnataka (38.95)<br>Manipur (36.90)<br>Tripura (36.57)  | J & K (36.05)<br>Meghalaya (39.62)<br>Uttar Pradesh (36.63)  |
| 40 to 50 | Haryana (46.41)<br>Meghalaya (44.42)<br>Odisha (40.82)<br>Uttarakhand (42.87)   | Goa (40.23)<br>Himachal (48.00)<br>Meghalaya (43.79)<br>Puducherry (43.56)<br>Punjab (40.22)<br>Uttar Pradesh (49.21)            | A & N (44.90)<br>Assam (49.63)<br>Chhattisgarh (42.28)<br>Delhi (43.59)<br>Odisha (42.04)<br>Uttarakhand (41.13)   |
| 50 to 60 | Andaman (52.28)<br>Delhi (53.39)<br>Goa (55.36)<br>Jharkhand (58.54)<br>Puducherry (52.18)  | Bihar (52.23)<br>Haryana (52.46)<br>Madhya Pradesh (51.68)<br>Sikkim (51.70)<br>Uttarakhand (55.33)                              | Chandigarh (56.82)<br>Goa (55.88)<br>Haryana (58.61)<br>Himachal Pradesh (51.64)<br>Karnataka (50.11)<br>Maharashtra (57.94)<br>Puducherry (51.44)<br>Punjab (57.49)<br>Rajasthan (52.04)<br>Tripura (56.55) |
| 60 to 70 | D&D and D&D (61.23)<br>Gujarat (60.97)<br>Himachal (68.77)<br>J & K (60.27)<br>Karnataka (63.35)<br>Lakshadweep (61.23)<br>Punjab (62.56)<br>Sikkim (66.01) | Andhra Pradesh (68.65)<br>Lakshadweep (67.80)<br>Maharashtra (61.16)<br>Odisha (61.47)<br>Rajasthan (61.44)<br>Telangana (64.17) | Andhra Pradesh (63.75)<br>D&D and D&D (60.31)<br>Gujarat (69.05)<br>Kerala (65.01)<br>Mizoram (61.90)<br>Telangana (61.95)   |
| 70 to 80 | Andhra Pradesh (71.68)<br>Chandigarh (78.48)<br>Maharashtra (73.31)<br>Tamilnadu (72.73)<br>Telangana (73.06)   | Chhattisgarh (70.99)<br>Gujarat (70.60)<br>Mizoram (70.38)<br>Tamilnadu (72.53)  | Tamil Nadu (71.06)   |
| 80 to 90 | Kerala (85.97)<br>Mizoram (83.49)<br>Tripura (85.01)  | Assam (89.29)<br>Dadar & Nagar Haveli & Daman & Diu (88.39)<br>Kerala (83.36)  |  |

Source: Health Index 2019-20 and SDG Index 2020-21, NITI Aayog.

much lower than the highest value of 71.06 in this domain in the case of Tamilnadu. Perhaps Tamilnadu is the only state which has had all the three-domain values in the range of 70 to 80 with an overall health index value of 72.42 with 3<sup>rd</sup> rank across the states in both the years 2018-19 and 2019-20. However, Tamilnadu still needs a considerable improvement in its health index which is true for all three domains.

One of the important points one can observe concerning all the indices computed in the country in the recent past including the Sustainable Development Goals or maybe it is School Education Quality Index or Performance Grading Index or Health Index is that all are confined to the state level as none of these indices are attempted to compute below the level of the state i.e. district and block levels. It may be observed that of late the concept of formulating district plans have been advocated and the same are being developed at the district level in case of one of the flagship programmes launched by the Government of India, namely *Samagra Shiksha* which has provision to formulate school education plans annually at the district level for which there is a provision to have planning teams both at the district as well at the state levels which are supposed to develop plans in a participatory planning mode.

However, it is still better to see how district plans are being developed and at what level? Of late, it has been observed that district school education plans in a few states are now being developed at the state level. Maybe the other sectors do have provision for district planning but the indices at the state level are of limited help while formulating district plans as they do not provide inputs to districts to intervene.

Another major issue is the year for which the indices are made available which are based on outdated data and are available much later after formulating the plan of that year. How best can indices based on past years be used while formulating current year plans? Forget the district plans the same may not even be used or provide limited inputs while formulating a state plan. In the absence of district-specific indices, the state indices are generally not been adequately shared at the district level, and with those who are engaged in plan formulation as they are generally found not to be thoroughly aware of the same.

Perhaps the most important limitation is the complete absence of district-specific targets in the absence of which it is not possible to monitor the progress and initiate corrective measures. There is limited scope to initiate activities at the district level given state-specific targets. It has also been observed that generally state-specific targets are set out in the benchmark years but in the absence of annual targets, it is not possible to analyze progress made and to initiate corrective measures. Districts should be thoroughly oriented so that they can understand an index and also indicators used in computing index. This will also help in creating awareness about the objective and purpose of computing an index and through this process, a sense of ownership would be created which would eventually help in achieving targets that the country has set out to attain which is specifically more true for sustainable development goals. Irrespective of the indices may be it is health, education, or even SDG, the national level institutions working in these areas can play a pivotal role in creating awareness about indicators which shall eventually help in developing capacity building not only officers engaged in planning at the sub-national level but would also help in creating awareness. The national institutions must also be part of the team that entrusted the task of computing the health index, its analysis, and producing the report.

*NOTE: Please refer to original documents available at the [NITI Aayog Website](#).*