16 DASHBOARD ANALYSIS, HMIS

INTRODUCTION

The RMNCH+A strategy aims to reduce child and maternal mortality through strengthening health care delivery system. In view of this, the Score Card developed by MoHFW is in use to assess & improve the service delivery through routine monitoring system. The, score card assists in comparative assessment of performance of the State, Districts and Sub-Districts /Blocks.

Key objectives

> - Provides the status of different of services delivered under RMNCH+A strategy for the   state, districts and blocks
> - Compares the districts/blocks using the overall composite index.
> - Facilitates use of HMIS data and improving the data quality in HMIS.

Approach

Score card shows the relative position of a State/ District/ Sub-District / Block using a composite index. A total of 16 indicators are used to calculate the composite index. These 16 indicators cover 4 stages of lifecycle mentioned below:

1 Pregnancy care

2 Child birth / delivery

3 Post natal, maternal and new born care

4 Pre-pregnancy/reproductive age

Composite Indicators	Indicators				
Pregnancy care	Registration during 1st trimester	PW receiving 3rd ANC	PW receiving 100 IFA tablets	Complicated cases attended for delivery	PWs receiving TT-2 and booster
Child birth	SBA delivery	Institutional delivery against registration	% C Section out of total Inst Delivery		
Postnatal, maternal & new born care	% Women stayed for 48 Hr	% of New born < 2.5 kg	% of New breast feed in 1st hour	% of New born visited 24 hr (Home Delivery)	% Full Immunisation against BCG
Reproductive age group	% of Male sterilisation	% PPS (post Partum Sterilisation)	% IUCD (Intra Uterine Contraceptive Device)		
Overall Index	Comprises of all the sixteen (16) indicators				

GENERATING COMPOSITE INDEX

Composite index is obtained by combining a number of indicators in a standardised way. It is a useful statistical measure to assess overall performance of a region over a period of time.

This section will cover the various steps involved in generation of the composite index based on the assumption that the scorecard is to be generated for State across Districts (Note: the same methodology shall apply for the district level score cards too i.e. District across blocks):

1. Generation of 16 indicators

There are 16 indicators (*as mentioned in the above table*) used for the generation of Composite index. The user is required to calculate the performance on these indicators (*using the data elements*) in terms of percentage (%) .

2. Identification of Max value and Min value

After getting the performance percentage (%) on sixteen (16) indicators mentioned above, the user is required to identify the maximum and the minimum value for each indicator.

3. Calculation of Index value for each indicator

After identification of the maximum and minimum value for each indicator, the user is required to convert percentage (%) values into index values. The index value is calculated on the basis of nature of the indicator, i.e. Positive indicator or Negative indicator

- a. **Positive indicator:** those indicators which are positively associated with development (*higher value linked to better performance*).
- b. Negative indicator: those indicators which are negatively associated with development (*higher value linked to poor performance*)

15 indicators are positive indicators. The indicator namely "children with birth weight < 2.5 kg" is the only negative indicator. For calculation of the index value of positive indicators, the following formula is referred:

$$\text{Index} = \frac{Xid - \min(Xid)}{\text{Max}(Xid) - \min(Xid)} \quad \text{(for +ve indicator)}$$

$$\frac{\max(Xid) - Xid}{\text{Max}(Xid) - \min(Xid)} \quad \text{(for –ve indicator)}$$

Xid (i=1,....16) is the value of the ith indicator of the dth district in terms of percentage (%) . Min(Xid) and Max(Xid) are the lowest and highest value in percentage (%) for a particular indicator for a particular .

Composite index = Average of the index values for corresponding composite indicator *(ex; Composite index for pregnancy care= average of the index values of the five (5) corresponding indicators under pregnancy care)*

Overall index = Average of the index values of all the sixteen (16) indicators.

After the above, the composite scores of the districts are divided into 4 parts (*for individual category*) using **quartiles**. The lowest ranking (lowest quartile) districts coded as Red (D) - depict very low performance, pink (C) – Low performing, yellow (B) - promising and Green (A) – good performance

Position of the composite index value	Above 3rd Quartile	Within 2nd and 3rd Quartile	Within 1st and 2nd quartile	Below 1st quartile
Performance	Good	Promising	Low	Very Low
Colour code	Green	Yellow	Baby Pink	Red