

**Supplementary Table 1.** Preparation of Methylation (M) standards.

| <b>S. No</b> | <b>% of Methylation standard</b> | <b>Positive Control DNA (100 ng/<math>\mu</math>l)</b> | <b>Negative Control DNA (100 ng/<math>\mu</math>l)</b> |
|--------------|----------------------------------|--|--|
| 1.           | 0%                               | 0 $\mu$ L  | 10 $\mu$ L   |
| 2.           | 5%                               | 0.5 $\mu$ L  | 9.5 $\mu$ L  |
| 3.           | 10%                              | 1.0 $\mu$ L  | 9.0 $\mu$ L  |
| 4.           | 25%                              | 2.5 $\mu$ L  | 7.5 $\mu$ L  |
| 5.           | 50%                              | 5.0 $\mu$ L  | 5.0 $\mu$ L  |
| 6.           | 75%                              | 7.5 $\mu$ L  | 2.5 $\mu$ L  |
| 7.           | 100%                             | 10.0 $\mu$ L   | 0 $\mu$ L  |

Completely methylated (M) and unmethylated (U) – bisulfite converted control DNA set from the commercial source used for the MS-PCR standardization purpose. Both M and U DNA were mixed to generate a required concentration (% standard) for downstream MS-PCR procedures.

**Supplementary Table 2.** Comparison of study parameters between sub-groups and baseline characteristics of enrolled children.

| Groups           | No of Cases (%) | Vitamin D level (ng/mL) | VDR Methylation (%) | VDR mRNA Expression |
|------------------|-----------------|-------------------------|---------------------|---------------------|
| <b>PTB*</b>      | 25 (58)         | 17.24 (10.75 – 18.59)   | 75 (50 – 75)        | 0.50 (0.40 – 0.76)  |
| <b>EPTB</b>      | 18 (42)         | 12.7 (8 – 18.5)         | 75 (50 – 81.25)     | 0.51 (0.41 – 0.66)  |
| <i>p</i> value   |                 | 0.4                     | 0.48                | 0.9                 |
| <b>AFB + ve*</b> | 11 (44)         | 17.72 (7 – 18.6)        | 75 (75 – 81.25)     | 0.48 (0.32 – 0.60)  |
| <b>AFB -ve</b>   | 14 (56)         | 17.24 (11.32 – 18.7)    | 75 (50 – 75)        | 0.62 (0.40 – 0.80)  |
| <i>p</i> value   |                 | 0.8                     | 0.29                | 0.2                 |
| <b>Age#</b>      |                 |                         |                     |                     |
| <5 y             | 17 (39.5)       | 18.41 (14.47 – 18.93)   | 75 (50 – 87.5)      | 0.56 (0.43 – 0.79)  |
| 6 to 10 y        | 13 (30.2)       | 11.90 (6.72 – 17.57)    | 75 (50 – 75)        | 0.51 (0.43 – 0.65)  |
| 11 to 15 y       | 13 (30.2)       | 14.96 (7.71 – 17.95)    | 75 (75 – 75)        | 0.41 (0.33 – 0.74)  |
| <i>p</i> value   |                 | 0.05                    | 0.6                 | 0.2                 |
| <b>LOA*</b>      |                 |                         |                     |                     |
| < 5days          | 24 (55.8)       | 17.21 (9.09 – 18.69)    | 75 (75 – 93.75)     | 0.51 (0.4 – 0.76)   |
| >5days           | 19 (44.2)       | 15.05 (8.2 – 18.62)     | 75 (50 – 75)        | 0.5 (0.41 – 0.6)    |
| <i>p</i> value   |                 | 0.8                     | 0.05                | 0.58                |

Y, Years; n, number; VDR, Vitamin D receptor; LOA, Loss of appetite; ND, No Data/Not Determined; \*Mann–Whitney U test was used to compare the study parameters between the two groups and #Kruskal–Wallis test was used to compare the study parameters between more than two groups;  $p < 0.05$  is significant; Data are median with IQR.