**Table S1:** Search strategy, original MeSH terms and alternative terms

|  |  |  |
| --- | --- | --- |
| **PubMed** | **SCOPUS** | **Google Scholar** |
| (“Vitamin D Deficiency” [MeSH]) AND Bangladesh [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Bangladesh [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Bangladesh [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH](“Vitamin D Deficiency” [MeSH]) AND India [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND India [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND India [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH](“Vitamin D Deficiency” [MeSH]) AND Pakistan [MeSH] AND pregnant women [MeSH](“Vitamin D” [MeSH]) AND Pakistan [MeSH] AND pregnant women [MeSH] | (INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(BANGLADESH) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS(BANGLADESH) AND INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY(BANGLADESH) AND TITLE-ABS-KEY (Pregnant women))(INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(INDIA) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS(INDIA) AND INDEXTERMS (Pregnant women) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY(INDIA) AND TITLE-ABS-KEY (Pregnant women))(INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(PAKISTAN) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS(PAKISTAN)INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY(PAKISTAN) AND TITLE-ABS-KEY (Pregnant women)) | ((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Bangladesh) AND (Pregnant women)((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (India) AND (Pregnant women) ((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Pakistan) AND (Pregnant women)((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Sri Lanka) AND (Pregnant women) ((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Afghanistan) AND (Pregnant women) |
| **PubMed** | **SCOPUS** | **Google Scholar** |
|  (“Vitamin D” [MeSH]) AND Pakistan [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH](“Vitamin D Deficiency” [MeSH]) AND Nepal [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Nepal [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Nepal [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH] (“Vitamin D Deficiency” [MeSH]) AND Sri Lanka [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Sri Lanka [MeSH] AND pregnant women [MeSH]  (“Vitamin D” [MeSH]) AND Sri Lanka [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH] (“Vitamin D Deficiency” [MeSH]) AND Maldives [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Maldives [MeSH] AND pregnant women [MeSH]  |  (INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(NEPAL) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS(NEPAL) AND INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY(NEPAL) AND TITLE-ABS-KEY (Pregnant women))(INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(BHUTAN) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”)INDEXTERMS(BHUTAN) AND INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY(BHUTAN) AND TITLE-ABS-KEY (Pregnant women))(INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(BHUTAN) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS(BHUTAN) AND INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY(BHUTAN) AND TITLE-ABS-KEY (Pregnant women)) (INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS (SRI LANKA) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS (SRI LANKA) | ((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Nepal) AND (Pregnant women)((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Nepal) AND (Pregnant women)((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Bhutan) AND (Pregnant women)((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Maldives) AND (Pregnant women)((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (Maldives) AND (Pregnant women)((“Vitamin D”) OR (“Vitamin D3”)) AND ((prevalence) OR (deficiency)) AND (South Asia) AND (Pregnant women) |
| **PubMed** | **SCOPUS** |
|  (“Vitamin D” [MeSH]) AND Maldives [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH] (“Vitamin D Deficiency” [MeSH]) AND Bhutan [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Bhutan [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Bhutan [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH] (“Vitamin D Deficiency” [MeSH]) AND Afghanistan [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Afghanistan [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND Afghanistan [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH](“Vitamin D Deficiency” [MeSH]) AND South Asia [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND South Asia [MeSH] AND pregnant women [MeSH] (“Vitamin D” [MeSH]) AND South Asia [MeSH] AND Prevalence [MeSH] AND pregnant women [MeSH] | AND INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND (TITLE-ABS-KEY (SRI LANKA) AND TITLE-ABS-KEY (Pregnant women))(INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(MALDIVES) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS(MALDIVES)INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) AND (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY(MALDIVES) AND TITLE-ABS-KEY (Pregnant women)) (INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS(AFGHANISTAN) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) AND INDEXTERMS(AFGHANISTAN) ANDINDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) (TITLE-ABS-KEY (“Vitamin D”) AND AND TITLE-ABS-KEY(AFGHANISTAN) AND TITLE-ABS-KEY (Pregnant women))(INDEXTERMS (“Vitamin D Deficiency”) AND INDEXTERMS (SOUTH ASIA) AND INDEXTERMS (Pregnant women)) OR (INDEXTERMS (“Vitamin D”) ANDINDEXTERMS (SOUTH ASIA) AND INDEXTERMS (Pregnant women)) OR (TITLE-ABS-KEY(“Prevalence”) (TITLE-ABS-KEY (“Vitamin D”) AND TITLE-ABS-KEY (SOUTH ASIA) AND TITLE-ABS-KEY (Pregnant women)) |

**Table S2:** Quality assessment of selected studies (Q1, Q2, Q3……Q10 denotes ten parameters described by Hoy et al for-quality assessment)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Authors** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** | **Q6** | **Q7** | **Q8** | **Q9** | **Q10** | **Total score** | **Quality** |
| Sahu et al 31 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | Low |
| Sachan et al 32 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | Moderate |
| Ajmani et al 33 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | Moderate |
| Sheetal et al 34 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | Moderate |
| Sudhanshu et al 35 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | Moderate |
| Taru et al 36 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 5 | Moderate |
| Krishnaveni et al 37 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | Moderate |
| Singla et al 38 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | Moderate |
| Sahu et al 39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | Low |
| Sharma et al 40 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | Moderate |
| Nagendra et al 41 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | Moderate |
| Marwaha et al 42 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | Low |
| Ullah et al 43 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | Moderate |
| Schulze et al 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | Low |
| Roth et al 45 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | Moderate |
| Roth et al 46 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 6 | Moderate |
| Anwar et al 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | Low |
| Khan et al 48 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | Low |
| Karim et al 49 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 5 | Moderate |
| Jiang et al 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | Low |

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**Figure S1:** Weighted mean level of serum vitamin D **(ng/mL)** among South Asian pregnant women (on the Y-axis). X-axis represent the name of the South Asian countries. Error bars represent the weighted standard deviations.

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**Figure S2:** Funnel plot for the publication bias of the selected studies.

Each dots of the funnel plot represent a single study. Y-axis represent the standard error of the effect estimates, and the X-axis shows the result (prevalence) for individual study.