

**File S1.** Search strategy by databases.

**N = 10.146**

**PubMed –2553 studies**

#1 – Vitamin D[MeSH Terms] OR Vitamin D deficiency[MeSH Terms] OR Vitamin D[Text Word] OR 25-hydroxyvitamin D[Text Word] OR vitamins[MeSH Terms] OR vitamin[Text word] OR vitamins[Text word]

#2 – Anxiety[Mesh Terms] OR Anxiety[Text word] OR Anxiety Disorders[MeSH Terms] OR Depression[Mesh Terms] OR Depression[Text word] OR Mood disorders[Mesh Terms] OR Mood disorders[Text word] OR mental health[Mesh Terms] OR mental health[Text word] OR Depressive[Text word]

#3 – Women[Mesh Terms] OR Women[Text word] OR Postpartum Period[Mesh Terms] OR Maternal Health Services[Mesh Terms] OR Maternal Serum Screening Tests[Mesh Terms] OR Pregnancy[Mesh Terms] OR Pregnancy[Text word] OR Female[Mesh Terms] OR Female[Text word] OR Females[Text word] OR Girl[Text word] OR Postpartum[Text word]

#4 - #1 AND #2 AND #3

**Scopus –2468 studies**

(( TITLE-ABS-KEY ( vitamin AND d ) OR TITLE-ABS-KEY ( 25-hydroxyvitamin AND d ) OR TITLE-ABS-KEY ( 25-hydroxyvitamin ) OR TITLE-ABS-KEY ( vitamins ) OR TITLE-ABS-KEY ( vitamin ) ) ) AND ( ( TITLE-ABS-KEY ( anxiety ) OR TITLE-ABS-KEY ( "Anxiety Disorders" ) OR TITLE-ABS-KEY ( depression ) OR TITLE-ABS-KEY ( "Mood disorder" ) OR TITLE-ABS-KEY ( "Mood disorders" ) OR TITLE-ABS-KEY ( "mental health" ) OR TITLE-ABS-KEY ( depressive ) ) ) AND ( ( TITLE-ABS-KEY ( women ) OR TITLE-ABS-KEY ( "Postpartum Period" ) OR TITLE-ABS-KEY ( "Maternal Health Services" ) OR TITLE-ABS-KEY ( "Maternal Serum Screening Tests" ) OR TITLE-ABS-KEY ( pregnancy ) OR TITLE-ABS-KEY ( postpartum ) ) )

**Web of Science –1724 studies**

#1 – TS=(Vitamin D OR "Vitamin D deficiency" OR 25-hydroxyvitamin D OR vitamins OR vitamin)

#2 – TS=(Anxiety OR "Anxiety Disorder" OR "Anxiety Disorders" OR Depression OR "Mood disorders" OR "mental health" OR Depressive)

#3 – TS=(Women OR "Postpartum Period" OR "Maternal Health Services" OR "Maternal Serum Screening Tests" OR Pregnancy OR Female OR Females OR Girl OR Postpartum)

#4 - #1 AND #2 AND #3

**Embase –2183 studies**

#1 – (('vitamin'/exp OR vitamin) AND d OR 'vitamin d deficiency'/exp OR 'vitamin d deficiency' OR '25 hydroxyvitamin') AND d OR 'vitamins'/exp OR vitamins OR 'vitamin'/exp OR vitamin

#2 – 'anxiety'/exp OR anxiety OR 'anxiety disorders'/exp OR 'anxiety disorders' OR 'anxiety disorder'/exp OR 'anxiety disorder' OR 'depression'/exp OR depression OR 'mood disorders'/exp OR 'mood disorders' OR 'mood disorder'/exp OR 'mood disorder' OR 'mental health'/exp OR 'mental health' OR depressive

#3 – 'postpartum period'/exp OR 'postpartum period' OR 'maternal health services'/exp OR 'maternal health services' OR 'maternal serum screening test'/exp OR 'maternal serum screening test' OR 'pregnancy'/exp OR pregnancy OR 'postpartum'/exp OR postpartum

#4 – #1 AND #2 AND #3 AND [embase]/lim

### **Cochrane Library –1385 studies**

#1 – Vitamin D OR "Vitamin D deficiency" OR 25 hydroxyvitamin D OR vitamins OR vitamin

#2 – Anxiety OR "Anxiety Disorder" OR "Anxiety Disorders" OR Depression OR "Mood disorders" OR "mental health" OR Depressive

#3 – Women OR "Postpartum Period" OR "Maternal Health Services" OR "Maternal Serum Screening Tests" OR Pregnancy OR Female OR Females OR Girl OR Postpartum

#4 - #1 AND #2 AND #3