

To: Secretariat, Scientific Advisory Committee on Nutrition (SACN)
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From: Rufus Greenbaum (www.rufusgreenbaum.com)

Date: September 23, 2015

Re: Comments on the Draft Vitamin D and Health report of July 22, 2015

My primary concern is that Vitamin D should be considered as a medical and health concern rather than being based on nutrition. For this reason individual health topics should also be considered by NICE.

I am disturbed that you set an arbitrary definition of Vitamin D Deficiency very early in your work. You announced that the definition would be set at 25 nmol/L, whereas the IOM set it at 50 nmol/L. In my submission to SACN I pointed out that there is good evidence that a level of at least 75 nmol/L is required for good bone health and that a group of experts have recommend a target level between 100-150nmol/L.

Please explain why the UK should set a target of 25nmol/L

In this document I will refer to a wide range of illnesses by reference to 3 major websites that have significant information about Vitamin D:

www.vitamindcouncil.org	44 health conditions reviewed
www.vitamindwiki.com	60 health conditions prevented or treated
www.grassrootshealth.net	Blood serum level of 100-150 nmol/L to prevent illness

A brief review of these websites will show that there are health benefits from maintaining Vitamin D blood levels higher than your arbitrary level of 25nmol/L

In addition, since Vitamin D is fat soluble and different people absorb different amounts, the medical focus should be on the measured blood level rather than the input or nutritional amount

There is a major omission by not making a significant review of Type 2 Diabetes

<http://www.vitamindwiki.com/Overview+Diabetes+and+vitamin+D>

<http://www.vitamindcouncil.org/health-conditions/>

The draft report has omitted reference to a number of other significant health conditions: Acne, Anaphylaxis, Anaemia/Anemia, Back Pain, Fibromyalgia, HIV & AIDS, Melanoma, Myeloma, Parkinson's, Psoriasis, Sepsis, Thyroid conditions and Trauma.

<http://www.vitamindwiki.com/VitaminDWiki>

<http://www.vitamindcouncil.org/health-conditions/>

The rest of these comments will refer to Paragraph numbers in the Draft Report

These comments are my private views, based on information about Vitamin D and many health conditions collected since 2009, and including previous formal submissions to the SACN

86. **Infants**
 Infants need Vitamin D and calcium, preferably from the mother
<http://www.vitamindwiki.com/Overview+of+Rickets+and+Vitamin+D>
<http://www.vitamindcouncil.org/health-conditions/rickets/>
87. **Children and Adolescents**
 Children and adolescents need higher levels of Vitamin D and calcium for more than bone development. Having a good level of vitamin D cuts in half the amount of: Asthma, chronic illness, doctor visits, allergies, inner ear infection, respiratory tract infection, growing pains and bed wetting
<http://www.vitamindwiki.com/Infant-Child>
88. **Adults**
 Adults need higher levels of Vitamin D for more than bone development
<http://www.vitamindcouncil.org/health-conditions/>
<http://www.vitamindwiki.com/Proof+that+Vitamin+D+Works>
http://grassrootshealth.net/media/download/dip_with_numbers_8-24-12.pdf
90. **Pregnancy & Lactation**
 Women should boost their level of Vitamin D at least 3 months before considering conception. This will improve their chances of becoming pregnant
- In one trial women were given 100 micrograms of Vitamin D3 each day during their pregnancy. From this and other trials there is evidence that higher Vitamin D leads to an easier pregnancy with less Bacterial Vaginosis, Gestational Diabetes, Pre-Eclampsia, dental problems, emergency C-sections and fewer pre-term births.
- If the pregnant woman has higher levels of Vitamin D their children have less Rickets, fewer seizures, less diabetes, less asthma> Development of the child is generally improved, with one trial showing fewer language problems at age 5
<http://www.vitamindwiki.com/Overview+Pregnancy+and+vitamin+D>
- If the mother has higher levels of Vitamin D after birth then her breast milk will have adequate levels of Vitamin D for her baby. She will also have a reduced risk of post-natal depression.
- There is strong evidence that boosting a woman's 25(OH)D to 100 nmol/L will reduce pre-term births to half the normal level, across different groups of ethnicity and skin colour.
 There is more information at: <https://www.youtube.com/watch?v=5jUU4rAQ8IE>
- 155-158 **Target blood levels**
 The IOM set 40 nmol/L as the level where 50% of the USA population have an adequate level and 50 nmol/L as the target for 97.5% of "normal, healthy persons"
- The Endocrine Society suggests:
to maximise the effect of Vitamin D on calcium, bone and muscle metabolism, serum 25(OH)D should exceed 75 nmol/L

Please explain why the UK should set a target of 25nmol/L

184. **Disease Prevention or Cure**

I note that this report only deals with disease prevention

NICE Guidance should consider whether Vitamin D should be used for treatment

199-212 **Bones**

Lifelong improvement in bone health is more likely if serum 25(OH)D is above 75 nmol/L. Priemel et al measured the bone health from 675 people who had recently died and the interpretation of their data by Dr Robert Heaney suggests that values below 75-80 nmol/L "*cannot be considered as adequate*"

282-289 **Military Bone & Muscle Strength**

There are many reports from the military where stress fractures are reduced when 25(OH)D is higher. They are an ideal group where controlled experiments have and can be done.

http://vitamindwiki.com/tiki-index.php?page_id=5892

328-344 **Falls**

There is a Cochrane Review that shows that falls in the elderly are reduced when Vitamin D serum and Calcium levels are higher.

This results from stronger bones and muscles

<http://www.vitamindwiki.com/Overview+Fractures+and+Falls+and+Vitamin+D>

356-391 **Pregnancy & Lactation**

Women should boost their level of Vitamin D at least 3 months before considering conception. This will improve their chances of becoming pregnant

In one trial women were given 100 micrograms of Vitamin D3 each day during their pregnancy. From this and other trials there is evidence that higher Vitamin D leads to an easier pregnancy with less Bacterial Vaginosis, Gestational Diabetes, Pre-Eclampsia, dental problems, emergency C-sections and fewer pre-term births.

If the pregnant woman has higher levels of Vitamin D their children have less Rickets, fewer seizures, less diabetes, less asthma> Development of the child is generally improved, with one trial showing fewer language problems at age 5

<http://www.vitamindwiki.com/Overview+Pregnancy+and+vitamin+D>

If the mother has higher levels of Vitamin D after birth then her breast milk will have adequate levels of Vitamin D for her baby. She will also have a reduced risk of post-natal depression.

There is strong evidence that boosting a woman's 25(OH)D to 100 nmol/L will reduce pre-term births to half the normal level, and reduce current disparities between many different groups of ethnicity and skin colour.

There is more information at: <https://www.youtube.com/watch?v=5jUU4rAQ8IE>

392-404 **Cancers**

There is evidence that levels of Vitamin D above 100 nmol/L help to prevent and treat many cancers.

There is good evidence for cancers of the Breast, Cervix, Colorectal, Esophagus, Stomach, Lung, Ovaries, Pancreas and Prostate

<http://www.vitamindwiki.com/Overview+Cancer+and+vitamin+D>

<http://www.vitamindcouncil.org/health-conditions>

405-418 **Cardiovascular disease**

There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Cardiovascular disease.

<http://www.vitamindwiki.com/Overview+Cardiovascular+and+vitamin+D>

<http://www.vitamindcouncil.org/health-conditions>

419-428 **Hypertension**

There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce hypertension by typically 5-10 mm Hg and should be used as part of a range of treatments

<http://www.vitamindwiki.com/Hypertension+and+vitamin+D>

<http://www.vitamindcouncil.org/health-conditions>

429-436 **All Cause Mortality**

There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce death from all causes

<http://www.vitamindwiki.com/tiki-index.php?page=Mortality>

437-470 **Autoimmune diseases**

There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many autoimmune diseases

<http://www.vitamindwiki.com/Autoimmune>

441-450 **Asthma**

There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Asthma

<http://www.vitamindwiki.com/Overview+Asthma+and+Vitamin+D>

<http://www.vitamindcouncil.org/health-conditions/>

451-454 **Diabetes**

There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat both Type 1 and Type 2 Diabetes

The draft report only mentions Type 1 Diabetes

It is a pity that Type 2 Diabetes was not reviewed, as there is significant benefit from increased levels of Vitamin D

<http://www.vitamindwiki.com/Overview+Diabetes+and+vitamin+D>

<http://www.vitamindcouncil.org/health-conditions/>

- 455-456 **Inflammatory Bowel Disease & Crohn's disease**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat all forms of Inflammatory Bowel Disease and Crohn's disease
- A number of Gastroenterologists regularly treat these diseases by boosting the level of Vitamin D – with good results
<http://www.vitamindwiki.com/Inflammation>
<http://www.vitamindcouncil.org/health-conditions/>
- 457-460 **Multiple Sclerosis**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Multiple Sclerosis
<http://www.vitamindwiki.com/Overview+MS+and+vitamin+D>
<http://www.vitamindcouncil.org/health-conditions/>
- There are reports from Brazil of doctors boosting Vitamin D to 250 nmol/L as part of a range of therapies to treat Multiple Sclerosis
http://www.vitamindwiki.com/tiki-index.php?page_id=5279
- 461-462 **Rheumatoid Arthritis**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Rheumatoid Arthritis
<http://www.vitamindwiki.com/Overview+Rheumatoid+Arthritis+and+vitamin+D>
- 463-464 **Lupus**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Lupus
<http://www.vitamindwiki.com/Lupus>
<http://www.vitamindcouncil.org/health-conditions/>
- 471-500 **Infectious Disease**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many forms of Infectious diseases
<http://www.vitamindwiki.com/VitaminDWiki>
<http://www.vitamindcouncil.org/health-conditions/>
- 477-484 **Tuberculosis**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Tuberculosis
<http://www.vitamindwiki.com/Overview+Tuberculosis+and+Vitamin+D>
<http://www.vitamindcouncil.org/health-conditions/>
- 485-494 **Respiratory Tract Infections**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Respiratory Tract Infections
http://vitamindwiki.com/tiki-index.php?page_id=3873
<http://www.vitamindcouncil.org/health-conditions/>

- 495 **Chronic Obstructive Pulmonary Disease**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Chronic Obstructive Pulmonary Disease
<http://www.vitamindwiki.com/COPD+helped+by+weekly+50%2C000+IU+Vitamin+D+%E2%80%93+several+trials>
<http://www.vitamindcouncil.org/health-conditions/>
- 501-519 **Neuropsychological functioning**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many forms of Neuropsychological functioning
<http://www.vitamindwiki.com>
- 503-506 **Cognition and dementia**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many health problems with Cognition and dementia
<http://www.vitamindwiki.com/Alzheimers-Cognition+-+Overview>
<http://www.vitamindcouncil.org/health-conditions/>
- 507-511 **Depression**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many forms of Depression
<http://www.vitamindwiki.com/Depression>
<http://www.vitamindcouncil.org/health-conditions/>
- 512 **Autism**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many forms of Autism
<http://www.vitamindwiki.com/Overview+Autism+and+vitamin+D>
<http://www.vitamindcouncil.org/health-conditions/>
- 513-516 **Schizophrenia**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many forms of Schizophrenia
http://www.vitamindwiki.com/tiki-index.php?page_id=2985
- 520-528 **Oral health**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat many forms of Oral health
<http://www.vitamindwiki.com/Dental>
<http://www.vitamindcouncil.org/health-conditions/>
- 530-537 **Age Related Macular Degeneration**
There is evidence that levels of Vitamin D between 100-150 nmol/L help to reduce and treat Age Related Macular Degeneration
<http://www.vitamindwiki.com/Vision>

End