PAGB Representing the Consumer Healthcare Industry since 1919

The SACN Secretariat
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Thank you for giving PAGB the opportunity to feedback on the Draft Vitamin D and Health report.

The Proprietary Association of Great Britain, PAGB, is the UK trade association for over the counter medicines and food supplements. We represent the major manufacturers of these products in the UK, many of whom are multinationals with experience of regulatory structures worldwide. PAGB currently represents 13 companies that manufacture food supplements within the UK.

| Paragraph number | PAGB Comment |
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| **1** | • PAGB is concerned at the statement "*it was assumed that, for most people, the amount of vitamin D produced by exposure to summer sunlight would product enough vitamin D for their needs during winter*"<br>• Although this is clearly background for the purposes of the introduction, it is exactly this kind of erroneous assumption that has resulted in the current public health concerns relating to a vitamin D deficit across UK populations. |
| **2** | • This raises a number of issues:<br>• Who defines what is (or is not) a "normal lifestyle"?<br>• The most prevalent (and therefore the most likely to be defined as "normal") lifestyle within the UK currently is one which is lived predominantly indoors and therefore unlikely to benefit from significant vitamin D synthesis generated by sunlight.<br>• Where time is spent out of doors bodies are either covered with clothes or sun cream as fear of skin cancer outweighs understanding of the need to expose skin to sunlight to facilitate vitamin D synthesis. |
| **6-8** | • PAGB are concerned that within the Terms of Reference noted in the report there is no remit to set or recommend intake levels or sources from which this intake may be obtained. |
| **27** | • Although 100g of egg yolk may indeed contain 5µg of vitamin D, the most recent MCance & Widdowson indicates that a single egg yolk contains around 1.8 µg and therefore around three eggs a day would need to be consumed to achieve an intake of 5µg, which is an unlikely scenario for the majority of the population.<br>• Consumption of eggs has declined significantly over the last three decades as a result of a number of factors. Similarly the consumption of offal and animal fats have also declined all of which have impacted on vitamin D intakes. |
| **28** | • UK populations do not consume wild mushrooms to any great extent and it seems almost disingenuous to have included this as a potential source of vitamin D, albeit in the introduction. |
| **59-61** | • Given the prevalence of obesity in the UK this is surely another "at risk" population:<br>• Information should be devised to provide advice on the risks associated with vitamin D deficiency in obese individuals. |
| **63** | • Paragraph 63 states: *"VRDs are also present in a wide range of other cells and tissues* ***not considered targets of vitamin D action****, including macrophages, lymphocytes, skin keratinocytes, pancreatic β-islet cells, ovarian tissue, mammary epithelium, neuronal tissue, lung, gonads, prostate, placenta and adipose tissues"*<br>• Vitamin D receptors are present in cells with the purpose of recognising and utilising vitamin D and can therefore be assumed to have a function, even if this has yet to be determined. |

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| | • The Committee should rather have noted that VRDs are present in all of these tissues; however the function of vitamin D in relation to these tissues is not yet fully understood. |
| **126** | • It is worth noting that sunscreen also blocks the synthesis of vitamin D and there have been instances where the overuse of sunscreen has played a role in the development of rickets.<br>• Evidence from Australia shows that there are increasing concerns about vitamin D levels in the populations there, largely as a result of the success of the "Slip Slap Slop" campaign which has run successfully for over 2 decades. |
| **131-132** | • The evidence discussed here underlines the unreliability of vitamin D blood assay.<br>• Could the Committed make a recommendation for further research into a more effective and reliable biochemical assay to determine vitamin D status? |
| **135** | • The study cited here not only raises an important question about reverse causality, it also strongly implies that vitamin D has a role in inflammation which would benefit from a recommendation by the Committee for further study in this area. |
| **142** | • Consumption of foods containing "rich" levels of vitamin D has declined significantly over the last few decades and, in relation recommended intakes, these foods generally contain relatively low levels.<br>• If such consumption is not being captured by dietary assessment methods then it is surely safe to make the assumption that intakes from diet are inadequate. |
| **164-171** | • Evidence discussed here indicates that the blanket 10µg recommendation made by SACN for the majority of the population may be inadequate for some cohorts, particularly those of African / Afro Caribbean descent who appear to have requirements ranging from 20-40µg/day. |
| **192** | • SACN acknowledges that observational studies show individuals with higher serum 25(OH)D **tend to be healthier** than those with lower concentrations largely due to greater exposure from sunlight, diet and, most telling, the "prophylactic use of supplements".<br>• Yet despite this SACN does not acknowledge any health benefits other than musculoskeletal, nor is there any specific recommendation to take food supplements even though it is clear that dietary intakes from food alone are inadequate and sunlight exposure is insufficient, for a plethora of reasons, to supply adequate levels in UK populations. |
| **552-556** | • Rickets was present in the majority of studies at serum 25(OH)D concentrations <25nmol/L and P555 states that risk appears to increase at serum 25(OH)D concentrations <20-30nmol/L.<br>• Would it not be advisable to set 30mnol/L as a red flag below which it is likely disease state/s may manifest?<br>• In the area of public health, where there is no evidence of risk from levels at 30nmol/L setting the bar higher may help prevent or reduce incidence of disease. |
| **724** | • Given that intakes of 10µg a day will be almost impossible to achieve through diet alone, **will SACN recommend that everyone take a food supplement?**<br>• In addition, evidence discussed above under paragraph 164-171 seems to indicate that some populations may require higher intakes to maintain health.<br>• **What is SACN's rationale for setting a one-size-fits-all blanket level** for the majority of the population? |