Tithe an Oireachtais
Houses of the Oireachtas

An Comhchoiste um Sláinte

Tuarascáil faoi aghaidh a thabhairt ar uireasa Vitimín D mar bheart sláinte poiblí in Éirinn

Aibreán 2021

Joint Committee on Health

Report on addressing Vitamin D deficiency as a public health measure in Ireland

April 2021

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Chair's Foreword

I welcome the publication of this report on the importance of addressing Vitamin D deficiency as a public health measure in Ireland. As we emerge from the Covid-19 pandemic, the State needs to review measures that might have led to fewer mortalities and lower morbidity. The battle against Covid-19, and indeed against future respiratory infectious variants, has illustrated the urgent need for public health policy to not only focus on the number of ICU beds and staffing levels, but also on the need to employ impactful preventative measures.

In that regard, the role of Vitamin D needs to be addressed as part of an enhanced public health policy that we will need as the health services cater to an older population that have an increased life expectancy. Ensuring that not only our older population but also those who are vulnerable with other underlying health conditions are better protected into the future will be a valuable legacy of the pandemic.

I want to thank the witnesses who gave evidence to the Committee on this issue and to the Members of the Committee and the Secretariat for their input into this Report.

I commend this report to the Dáil and Seanad and I look forward to the development of this new public health policy this year.

Seán Crowe TD
Chair
Joint Committee on Health
7 April 2021

Members of the Joint Committee on Health

 **Colm Burke TD (FG)**	 **Cathal Crowe TD (FF)**	 **Seán Crowe TD (SF) (Chair)**	 **David Cullinane TD (SF)**
 **Bernard Durkan TD (FG)**	 **Neasa Hourigan TD (GP)**	 **Gino Kenny TD (PBP)**	 **John Lahart TD (FF)**
 **Róisín Shortall TD (Soc. Dems)**	 **Sen. Frances Black (IND)**	 **Sen. Lorraine Clifford - Lee (FF)**	 **Sen. Martin Conway (FG)**
 **Sen. Annie Hoey (Lab)**	 **Sen. Seán Kyne (FG)**		

Introduction

1. The fight to protect our population and to treat those infected with Covid-19 has focused primarily on two areas of health care, namely on our acute hospital system and on public health measures that prevent the spread of the disease in the community. The Committee has heard the first-hand evidence of the trojan efforts being made by our health care workers that has saved the many lives of those who required intensive care in our acute hospitals. The various public health measures that were employed during the course of the pandemic, such as restrictions and lock-downs, were necessary to drive the virus out of the community and many of those measures, including social distancing and hand washing, will most likely be needed long after restrictions are lifted. The vaccination programme currently underway will facilitate society's return to some type of normal living.

2. As of April 2021, we have a greater understanding about the virus than was the case when the news of the virus first emerged. There is little doubt that the virus has revealed weaknesses not only in our public health system, including the manner in which we look after older people in long-term care facilities, but also in other areas, such as the way workers are treated in meat processing facilities. As the State emerges from the third wave of the virus and as the ongoing vaccination programme provides a degree of herd immunity to the population, there is a need to strengthen our understanding about the impact of the pandemic on the population and on the measures that need to be put in place to protect people. In that regard, there must be a greater focus on preventative public health measures that prevent illnesses, especially given that Ireland will have a much older population that will live longer in the years ahead.

3. One of the public health measures that the Committee wants the health authorities to address is the role of Vitamin D and the best way in which the known, widespread deficiency of Vitamin D can be addressed. In this short report, the Committee highlights the issues that need to be addressed. It also draws upon the experience of other countries with respect to Vitamin D, primarily Finland, which had a more positive outcome in terms of the impact of Covid-19 upon the general population.

    - In chapter one, the report examines the role of Vitamin D in preventing ill-health and respiratory illnesses;
    - In chapter two, the report examines the extent to which there is Vitamin D deficiency in the Irish population;
    - In chapter three, the report looks to what is happening in other countries and draws particularly on the experience of Finland, but also on what is happening now in the UK; and
    - In chapter four, the Committee makes recommendations on the steps that need to be taken to promote the uptake of Vitamin D supplementation, including a public health information campaign, the development of public health guidelines and the need for specific measures for vulnerable groups such as those in nursing homes.

4. The Committee held one public examination of this issue on 23rd February 2021 with the following witnesses from the Covit D consortium:

   - Professor Rose Anne Kenny;
   - Professor James Bernard Walsh;
   - Professor John Faul;
   - Dr. Martin Healy; and
   - Dr. Daniel McCartney.

   The transcript of that debate is available at the following link:

5. The Committee, in accepting the important role that Vitamin D can play in delivering positive health outcomes, would call upon the public health authorities to engage more assertively on this topic so that there is public clarity on what needs to be done in order to address the known widespread deficiency that exists in the Irish population.

Summary of Recommendations

Recommendation 1
Daily Vitamin D supplements of 20-25µg/day (800–1000 IU/day) should be recommended to the entire adult population, where possible and where medically appropriate, as a public health measure to reduce the risk of respiratory and other illnesses such as osteoporosis. The Committee recommends that where required, any supplementation at higher doses than this should be taken under medical supervision.

Recommendation 2
A public health policy to increase knowledge and encourage increased intake of Vitamin D through supplementation should be developed in time for consideration for Budget 2022.

Recommendation 3
To reduce the cost of Vitamin D supplementation and to promote its uptake, the Government should reconsider the current VAT applied, with a view to either reducing or preferably eliminating it.

Recommendation 4
Specific measures need to be put in place for vulnerable groups, especially nursing home residents and those who are in confined settings, such as prisons; and for frontline and healthcare workers. For these groups, provision of Vitamin D should be administered on an opt-out basis. Additionally, for the duration of this pandemic, those attending Covid-19 test centres should be offered Vitamin D supplements on presentation for their Covid-19 test.

1. The Role of Vitamin D in Supporting Good Health

1.1 Introduction

6. The debate around the importance of Vitamin D has been brought into sharper focus by the Covid-19 pandemic. We know that since 11 March 2020, when the first death was notified, over 4,500 people have died from Covid-19 in the State. Most of those were aged 65 or older, and many were in nursing homes where they were more likely to be Vitamin D deficient. We also know that poorer health outcomes as a result of Covid-19 were likely in those who had underlying medical conditions. A detailed analysis of those who died and those whose health is permanently damaged as a result of contracting Covid-19 will have to be conducted once our health authorities have completed the battle against Covid-19. Any such analysis will also have to assess the role that Vitamin D deficiency played in delivering these poorer outcomes and targeted research will need to be undertaken in this regard

1.2 Why is Vitamin D important?

7. Evidence given to the Committee confirms the accepted medical norm that Vitamin D is well-known for its importance in supporting human health. Not only does it support bone health and prevent osteoporosis through its promotion of calcium absorption, it is also known for assisting muscle strength. An inadequate level of vitamin D has been associated with a number of diseases including metabolic disorders, autoimmune conditions, psychiatric, respiratory and cardiovascular disorders, and cancers, as well as osteoporosis and osteomalacia. [1]

8. In addition, and as outlined to the Committee, a report from a TILDA study (Data from the Irish Longitudinal Study on Aging) found that people over the age of 50 years are 75% more likely to experience depression if their Vitamin D levels are low. The study demonstrates that Vitamin D deficiency is associated with a significant increase in the likelihood of developing depression in later life. These findings are important, given the high prevalence of Vitamin D deficiency amongst our older population and the fact that supplementation has a low risk of toxicity or side effects, as well as the significant adverse effect depression can have on functional status and longevity in later life[2].

1.3 The link between Vitamin D deficiency and Covid-19

9. More relevant in the context of Covid-19, Vitamin D is known to assist the immune system in fighting harmful bacteria and viruses, and to reduce the risk of Acute Respiratory Infection (ARI). The Covid-19 pandemic has highlighted the important role Vitamin D can play in the fight against SARS-CoV-2. Severe Covid-19 disease produces severe respiratory symptoms such as bilateral pneumonia associated with a high morbidity and mortality, especially in patients of an advanced age[3].

[1] https://pubmed.ncbi.nlm.nih.gov/28637448/
[2] https://www.jamda.com/article/S1525-8610(18)30579-6/fulltext
[3] https://www.sciencedirect.com/science/article/pii/S0211139X21000044?via%3Dihub

10. Evidence cited to the Committee from a major international study (the Jolliffe papers) shows a 25% reduction in the risk of respiratory infection in those taking daily Vitamin D supplements. In the face of a lethal respiratory pandemic, this study would suggest that there would be a strong case for population intervention in Ireland in the form of Vitamin D supplementation.

11. Additionally, while large, well-designed, placebo-controlled randomised control trials of vitamin D supplementation against Covid-19 are awaited, the evidence from existing studies in this area already meets the Bradford-Hill criteria for causality[4]. These findings strongly support a causal relationship between low vitamin D status and increased risk and severity of Covid-19 infection.

12. Irrespective of Covid-19, Vitamin D supplementation is an essential public health measure required to address the widespread deficiency noted across the Irish population and the significant adverse health effects of this deficiency.

1.4 Addressing Vitamin D deficiency

13. The natural way of addressing deficiency is through exposure to the sun or, more specifically, through ultraviolet B (UVB) rays. Vitamin D deficiency can also be addressed through dietary means and the use of supplements.

14. The number of daylight hours, especially from late autumn to mid-spring, and the lack of sunshine are limiting factors in countries such as Ireland. In that regard, the association of sun exposure with skin cancer must also be considered. Lifestyle factors such as longer working hours indoors and less time spent outdoors may impact upon the ability to achieve sufficient sun exposure. In addition, those in nursing homes spend considerable periods indoors, especially if shielding or self-isolating, which also limits their ability to build up Vitamin D.

15. Furthermore, in this context the following evidence from Professor Faul and Professor Kenny is notable:

> *"To back up what my colleagues said, because of the lockdown we have even less sun exposure. None of our patients with respiratory illnesses are going on sunny holidays, which are good for them. They are in lockdown and they cannot get Vitamin D from the sun. For this reason alone, we should be increasing the supplementation."* – Professor John Faul

> *"We do not get it in Ireland from sunshine at this time of the year or, indeed, during most of spring and some of autumn. This message needs to get out there. I say this because I have heard scientists speaking on radio saying there is no need to supplement because people get sufficient from food and sunshine in Ireland. This is very incorrect and it needs to be said."* - Professor Rose Anne Kenny

[4] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1898525/

Additionally, there are a limited number of natural dietary sources of Vitamin D and there is increasing evidence that dietary supply is almost always insufficient to offset the seasonal deficit in sunlight, particularly during the winter months. The two main sources of Vitamin D found in food in Ireland are fortified milk (e.g., super milk) and cereals. In his evidence to the Committee, Professor Walsh stated that whilst oily fish and salmon are sources of Vitamin D, farmed salmon has less than a third of the Vitamin D content as wild salmon.

16. The lack of sunshine and the lack of natural dietary sources of Vitamin D in Ireland indicate that in the absence of mandatory food fortification, the only way for the Irish population to get a sufficient level of Vitamin D is through the regular use of Vitamin D supplements.

17. With regard to the safety of Vitamin D supplementation, there is consensus from the European Food Safety Authority (EFSA)[5], the Scientific Advisory Committee on Nutrition (SACN)[6] in the UK and the Institute of Medicine (IoM)[7] in the US that oral vitamin D intakes below 100 micrograms per day (i.e., less than 4000 IU/day) are safe for adults and do not pose a risk to human health. Additionally, in 2018 the Food Safety Authority of Ireland (FSAI)[8] endorsed the EFSA upper intake threshold of 100 micrograms per day (4000 IU/day) for adults and children over the age of 11 years (FSAI, 2018).

1.5 Conclusion

18. Addressing Vitamin D deficiency in our population must be established as an essential cornerstone of our public health policy. It will protect our more vulnerable communities, not only from Covid-19, but from a range of other illnesses, particularly during the winter months. In chapter two, this report examines the extent to which there is known deficiency in our population.

[5] EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA) (2012) Scientific Opinion on the Tolerable Upper Intake Level of vitamin D. EFSA Journal;10(7):2813. [45 pp.] doi:10.2903/j.efsa.2012.2813.
[6] Scientific Advisory Committee on Nutrition (SACN) Vitamin D and Health. Crown copyright 2016. Report available online at: https://www.gov.uk/government/groups/scientific-advisory-committee-on-nutrition
[7] Institute of Medicine (IOM) (2011) Dietary Reference Intakes for Calcium and Vitamin D. Washington, DC: The National Academies Press
[8] FSAI Scientific Committee on Nutrition (2018) The Safety of Vitamins and Minerals in Food Supplements – Establishing Tolerable Upper Intake Levels and a Risk Assessment Approach for Products Marketed in Ireland (Revision 2). Dublin: FSAI.

2. Vitamin D Deficiency in Ireland

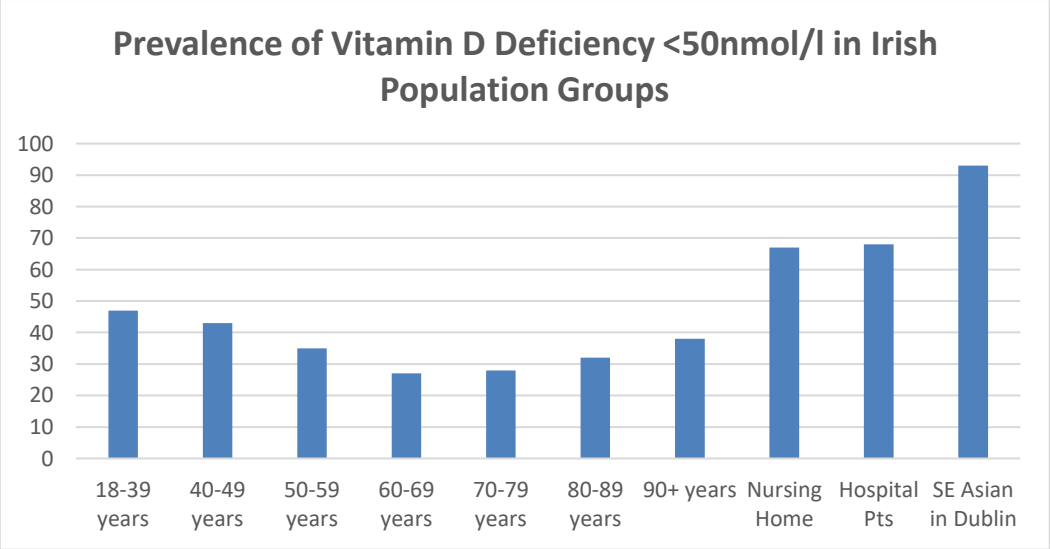
2.1 Introduction

19. At its meeting on 23rd of February[9] the Committee heard evidence of the extent to which our population is deficient in Vitamin D. As outlined in chapter one, skin exposure to sunlight is the primary source of Vitamin D; however, we do not get sufficient sunshine in Ireland, or more often than not, it lacks sufficient UVB intensity to make enough Vitamin D for enhanced immune function, especially during winter. In addition, there is limited capacity to obtain vitamin D from natural and fortified foods. This chapter examines what is currently known about Vitamin D deficiency in Ireland.

2.2 The extent of Vitamin D deficiency (<50nmol/l) in the population of the Republic of Ireland

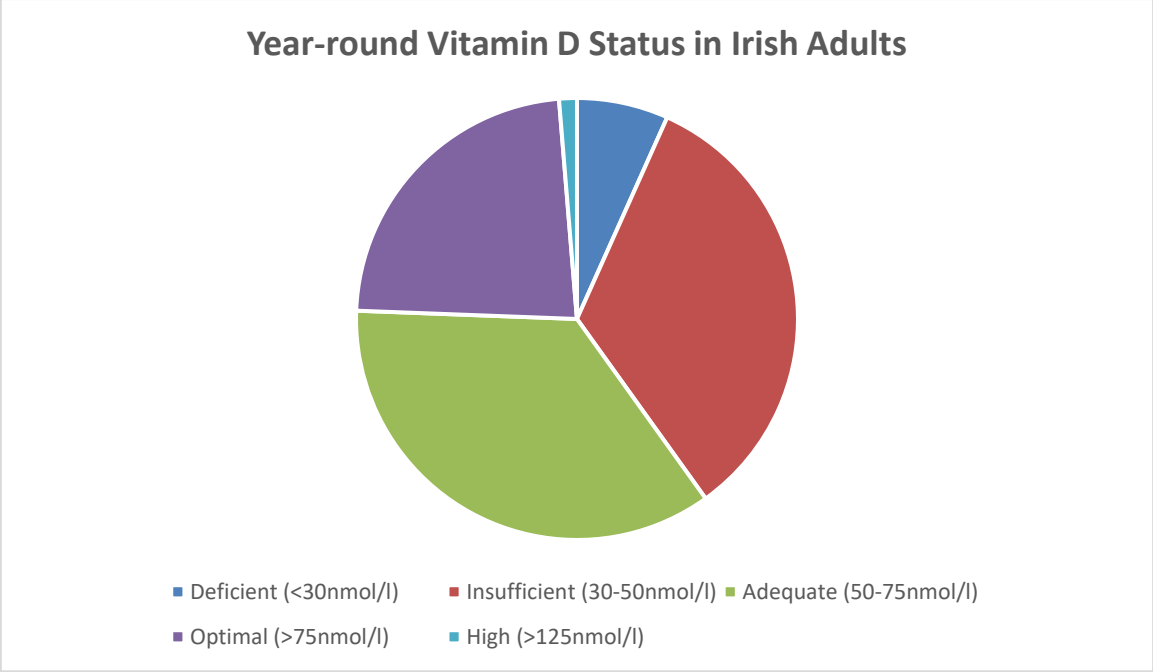
20. The Committee was told that vitamin D deficiency is common across all age groups in the Irish population and the following figures illustrate the extent of these deficiency levels:

- 47% of 18-39-year olds
- 35% of 50-59-year olds
- 64% of over 80s
- > 67% of nursing home residents
- 93% in dark-skinned Irish BAME communities



From Scully et al., 2020 (https://doi.org/10.3390/nu12092663); Griffin et al., 2020 (https://doi.org/10.1093/gerona/glaa010), Laird et al., 2020 (DOI: 10.3390/nu12123674)

[9] https://www.oireachtas.ie/en/debates/debate/joint_committee_on_health/2021-02-23/



National data from NANS Cashman et al., 2013

21. The groups who are at the highest risk of infection and who have the most severely negative outcomes from contracting Covid-19, i.e., older adults, those who are overweight or obese, those who have darker skin, indoor workers such as meat processing operatives, etc., do not have any common characteristics and would appear to be unrelated groups. However, the one unifying characteristic that they all share is low Vitamin D status.[10] The groups with the highest prevalence of Vitamin D deficiency (those with obesity, dark skin, and older adults) are the same as the groups with highest risk from Covid-19.

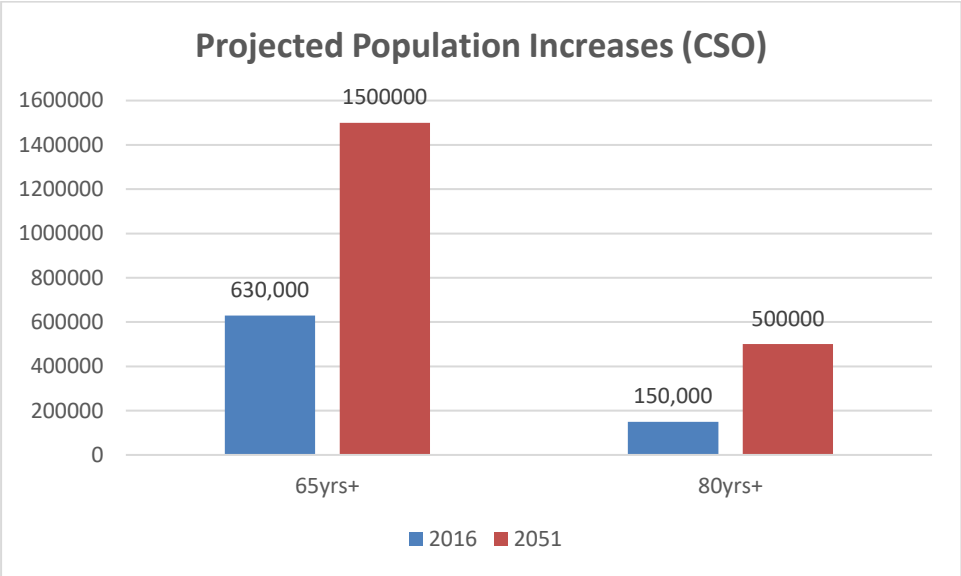
2.3 Residents in long term care facilities

22. The Covid-19 pandemic has brought national attention to the prevailing conditions of nursing homes in Ireland. The Special Oireachtas Committee on Covid-19 has called for a public inquiry and, following on from the Covid-19 Nursing Homes Expert Panel Report[11], there will be a renewed emphasis on regulating the sector and in changing the model of care for older people. As will be outlined in chapter four of this report, the Committee will be calling for specific provisions to address Vitamin D deficiency in nursing homes.

[10] Rhodes et al., 2020; Walrand et al., 2021).
[11] https://www.gov.ie/en/publication/3af5a-covid-19-nursing-homes-expert-panel-final-report/

2.4 Increasing older age population

23. Ireland's older population is projected to increase drastically over the next 30 years (up until 2051).[12] The CSO modelling on this predicts that those aged 65 years and over will increase from the 2016 level of approximately 630,000 to more than 1,500,000 by 2051. Furthermore, the very elderly population, i.e., those 80 years and over, is predicted to rise from approximately 150,000 in 2016 to over 500,000 in 2051. The need for Vitamin D will therefore be an ever-increasing requirement to protect this ageing population.



2.5 Obesity

24. Apart from age, obesity is another underlying condition which results in Vitamin D deficiency, with overweight and obese individuals requiring higher oral doses of Vitamin D. It is noteworthy that 60% of Irish adults are now classified as either overweight or obese[13]. The figures increase for older age groups, with 75% of women and 85% of men in the 65–74-year age group, and 73% of women and 82% of men in the 75+ year age group, defined as overweight or obese in a national survey[14]. In addition to its direct effects on Vitamin D status, obesity is also a principle determinant of many of the chronic diseases which have been explicitly linked to poorer outcomes in Covid-19-related illnesses amongst older adults.

[12] CSO Population and Labour Force Projections 2017-2051
[13] https://assets.gov.ie/16210/525a06d3aaef4f23889c8fbdcc40d40a.pdf
[14] https://tilda.tcd.ie/publications/reports/pdf/Report_ObesityAgeing.pdf

Table: Body mass index classification by age and sex

Gender	Age	Underweight	Normal	Overweight	Obese
		%	%	%	%
Men	50-64	1	16	46	38
	65-74	1	14	45	40
	>=75	1	17	46	36
	Total	1	16	46	38
Women	50-64	0	27	40	32
	65-74	0	24	40	35
	>=75	0	26	39	34
	Total	0	26	40	33

2.6 BAME Community

25. The written evidence submitted to the Committee[15] illustrates that certain BAME population groups are at an increased risk of Vitamin D deficiency. A study conducted to assess the Vitamin D status of a sample of the Dublin residents of South East Asian descent found that, in total, 93% of the total sample were Vitamin D deficient, while sufficient levels were recorded in just 6.7%. The study also found that seasonal variation was not evident, while high rates of deficiency were also observed in those aged <18 years and >50 years. Currently, there are no specific Vitamin D intake or Vitamin D status maintenance guidelines recommended for adults from the BAME community in Ireland.

2.7 Conclusion

26. What the Committee has learnt from its examination of these issues is that Vitamin D deficiency is not confined to discrete population groups, but rather it is common and severe across the entire Irish adult population.

27. The lack of sunshine in Ireland of sufficient UVB intensity for the majority of the year, the lack of foreign travel to sunny climates, the recommendation to the elderly to cocoon and stay indoors, along with the difficulty in obtaining sufficient Vitamin D from food, has increased the urgent need for daily Vitamin D supplements. The public policy response to this deficiency should take account of what measures have been put in place elsewhere and this is the subject of chapter three.

[15] https://pubmed.ncbi.nlm.nih.gov/33260572/

3. International Approaches to Vitamin D Deficiency

3.1 Introduction

28. This chapter provides a synopsis of what is happening in a range of other countries and it provides an opportunity to learn from the mistakes as well as the successes of those international approaches. What is clear, based on the evidence supplied to the Committee, is that there is a need to address this issue, not just as part of the more pressing Covid-19 response, but as a longer-term public health measure. As mentioned earlier, the state that has done the most to address Vitamin D deficiency is Finland, and it has also the best Covid-19 outcomes in terms of mortality in the EU. Evidence that was submitted to the Committee relating to the proactive approaches taken in France, Spain, England and Scotland are also highlighted here and underpin the need for Ireland to take urgent action on this matter.

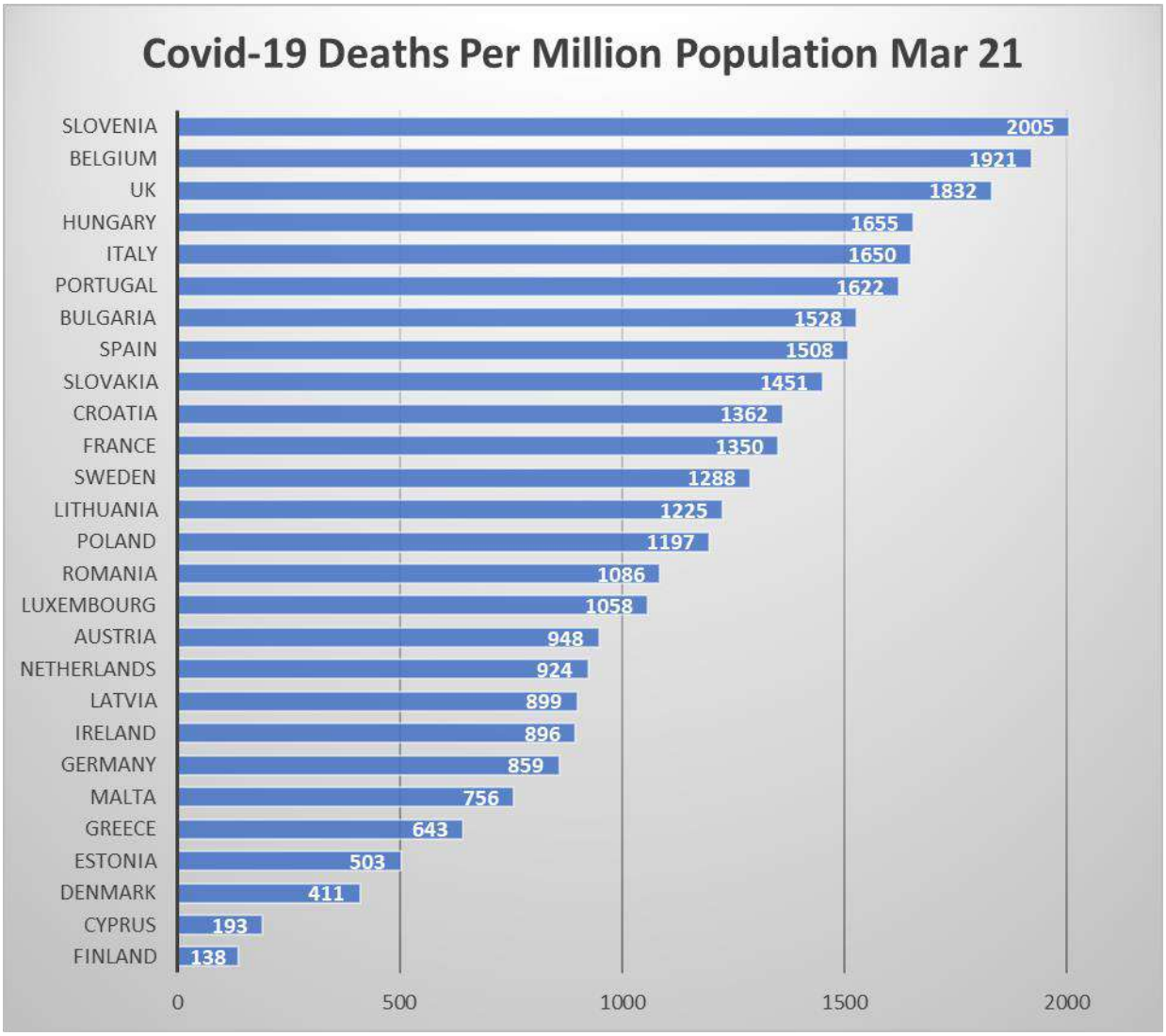
3.2 Finland - The EU Country with the lowest cases and deaths from Covid-19

29. As far back as 2003, Finland introduced national recommendations for the fortification of liquid milks and spreadable fats with Vitamin D, doubling the level of this fortification in 2010. In 2014 they increased their recommended doses of supplemental Vitamin D to levels likely to yield meaningful benefit in relation to immunological function (including doses of 20 micrograms per day (i.e. 800 IU/day) for all those aged 75 years and over). A 2016 study showed that these policy changes had produced increases in daily Vitamin D intake from 5 to 17 micrograms per day in men, and from 3 to 18 micrograms per day in women, between 2002 and 2012. Additionally, more than 75% of the adult population had achieved blood vitamin D levels above the critical 50nmol/l threshold for enhanced immunity by 2012.[16]

30. Finland, a Nordic country with low sunlight intensity for much of the year, has experienced the lowest daily number of Covid-19 cases and the lowest deaths from Covid-19 in the EU and UK.

[16] https://pubmed.ncbi.nlm.nih.gov/28339536/

Table 1



Source: World Health Organisation 8th March 2021

31. The Finnish approach to food fortification and supplementation has successfully raised Vitamin D levels across the Finnish population over the past 20 years. While there may have been other aspects of Finland's pandemic response which have been beneficial, it is highly plausible that enhanced population Vitamin D status has been a significant factor in Finland's low observed incidence and case-fatality rates from Covid-19 over recent months. As of 8th March, Finland had a total of 138 fatalities from Covid-19 per million population, roughly one sixth of the total in Ireland which had 896 per million population.

3.3 Spain - Cordoba pilot study

32. This was a study into the effect of calcifediol treatment and best available therapy versus best available therapy on intensive care unit admission and mortality among patients hospitalized for Covid-19.[17] The study found that, overall, adults living in the Cordoba area are relatively Vitamin D deficient in late winter and early spring.

33. Included in the study were seventy-six consecutive patients hospitalized with Covid-19 infection. 26 patients were treated without calcifediol treatment, 50 with calcifediol treatment. Of 50 patients treated with calcifediol, only one patient required admission to the ICU (2%), while of 26 untreated patients, 13 required admission (50%). Of the patients treated with calcifediol, none died, and all were discharged, without complications. The 13 patients not treated with calcifediol, who were not admitted to the ICU, were discharged. Of the 13 patients admitted to the ICU however, two died and the remaining 11 were discharged.

34. The pilot study demonstrated that administration of a high dose of calcifediol[18] very significantly reduced the need for ICU treatment of patients requiring hospitalization due to proven Covid-19.

35. In early November, the Andalucian Ministry of Health and Families released a report of the technical committee of experts which recommended the use of calcifediol (an activated metabolite of Vitamin D) in elderly residents in social health centres to minimize the incidence of infection and lessen its severity if it occurs.

36. Based on this report, the Ministry of Health and Families recommended the use of Vitamin D in these centres in a generalized way. Initiation of this programme in mid-November 2020 coincided with a fall in daily case fatalities from 70 per day in mid-November to just 3 per day by the first week in January, data which are all the more remarkable given the significant escalation in SARS-CoV-2 incidence and Covid-19 mortality which occurred throughout Europe over the same period. Although these data remain unpublished in the peer-reviewed literature, the dramatic reduction in the daily case fatalities is noteworthy.

3.4 France

37. In May 2020, the French National Academy of Medicine advised that anyone under the age of 60 who was diagnosed with SARS-CoV-2 infection should be immediately supplemented with 20-25ug/d (800-1000 IU) of Vitamin D. They also recommended that those over 60 years of age should have their 25(OH)D tested as soon as their SARS-CoV-2 diagnosis was confirmed, and that they should be supplemented with a loading dose of 50,000-100,000 IU (1250-2500ug) of Vitamin D3 where deficiency was confirmed.

[17] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7456194/
[18] (25-hydroxlated Vitamin D3 (25(OH)D)

3.5 England and Scotland

38. England and Scotland have recently initiated statutory supplementation of vulnerable older groups with Vitamin D this winter. At the end of November, the UK government announced it would offer four months of free Vitamin D supplements to all those in care homes and shielders (2.7 million people) with the prison service also providing free supplements to all prisoners[19]. Health Secretary Matt Hancock addressed the issue of Vitamin D in the House of Commons on the 15th October. In his speech he stated: *"On the point of Vitamin D, I have asked the scientists to look once again at the impact of Vitamin D on resistance to immunity. There has been some updated evidence that has come to light in the last few weeks and I want to make sure that this is fully taken into account."* He also committed to increased public messaging on Vitamin D: *"We will be increasing the public messaging around Vitamin D to make sure that people get the message that Vitamin D can help with your broad health and that there is no downside to taking it and therefore people should consider that."*

3.6 Conclusion

39. While the Committee accepts that there may be other factors that influenced the strong performance by Finland in minimising SARS-CoV-2 infection and mortality as a result of Covid-19, it recognises the positive role of Finland's public health policy on Vitamin D deficiency. In addition, we know that our health sector compares poorly to Scotland in terms of the approach to public health and specifically to issues like mental health. There is strong evidence which now exists to support intervention in the promotion of Vitamin D supplementation and in chapter 4, the report will outline the next steps Ireland must take to address Vitamin D deficiency.

[19] https://www.gov.uk/government/publications/vitamin-d-for-vulnerable-groups/vitamin-d-and-clinically-extremely-vulnerable-cev-guidance

4. Reforming Public Health Policy

4.1 Introduction

40. Public health policy in Ireland has been dominated by a high-cost hospital-centred approach, where the focus is on treatment and cure, with public health policy which has a primary focus on prevention, being very much the poor relation. The change to community-based care, with enhanced public health measures, is at the core of *Sláintecare* and the proposals in this chapter to develop a policy to address Vitamin D deficiency are in tandem with what we now want our health policies to become in the years ahead. The Committee is also of the view that this new approach should, whilst being influenced by our analysis of the State's performance in the fight against Covid-19, have a long term focus that will maximise the protections afforded to our citizens and keep a larger proportion of them healthier for longer.

4.2 Next steps

41. There are a number of steps that now need to be taken and these include:

1. The need for the public health authorities, under the direction of the Minister for Health, to produce a revised public health policy in 2021 with national guidelines that will, over a short period of time, eliminate Vitamin D deficiencies in the population.
2. Arising from the publication of new policy guidelines, the HSE needs to fund an information campaign on the importance of Vitamin D supplementation.
3. Specific measures must be put in place for vulnerable groups, especially nursing home residents and those who are in confined settings, such as prisons, and for frontline workers, including healthcare workers. This provision of Vitamin D supplements should be administered on an opt-out basis. Additionally, for the duration of this pandemic, those attending Covid-19 test centres should be provided with Vitamin D supplements on presentation for their Covid-19 tests.

4.3 A new public health policy on Vitamin D

42. The evidence given to the Committee strongly advocates the provision of supplements and the Committee will endorse this position based on the scientific evidence that shows levels of deficiency. However, public health policy is a matter in the first instance for the Minister for Health. In addition, as this public health measure will involve some public expenditure, it will require Government approval. The Committee is recommending the development of a revised public policy and that this policy be viewed as part of the suite of measures being implemented as part of Sláintecare. The Committee is of the view that a full review should be completed by Autumn 2021 and be included in Budget 2022.

43. This policy should address the following issues:

1. Clear population guidance for Vitamin D supplementation, as part of a comprehensive policy response to combat Vitamin D deficiency and enhance the immune function and overall health of the Irish population.

2. The appropriate daily recommended dosage for both adults and children, taking account of the evidence given to the Committee, i.e., that adults should take a daily recommended dosage of 20-25ug (800-1000 IU) of Vitamin D supplement and that children should take 10ug (400 IU). The supplementation of vulnerable adults with a greater likelihood and/or degree of deficiency is recommended at doses >20-25ug/day (800-1000 IU/day) under medical supervision.

3. These minimum dosages are needed to support optimal immune function, including resistance to acute respiratory infections.

4. The co-supplementation of magnesium where required, in order to enable Vitamin D to exert its protective effects.

5. Any other patient safety measures, having regard to the evidence given to the Committee that dosages at the levels cited to the Committee will not pose a risk to human health.

6. The need for statutory supplementation of vulnerable older groups with Vitamin D during winter months. In this regard, the advice to the Committee is that this should be undertaken on an opt-out rather than an opt-in basis. An opt-in system relies on personal responsibility, which is not effective in a population which is constrained by institutional living. The elderly in care homes might not have the mobility and/or possibly the mental capacity to live independently and are wholly reliant on the nutrition they receive in that institutional setting. An opt-in system would also be ineffective in providing Vitamin D supplements to low socioeconomic status and socially marginalised groups who may be unaware of the need for supplementation.

7. The need to encourage supplementation by reviewing the rate of VAT applied, with a view to reducing this VAT rate to zero as a public heath measure.

4.4 National information campaign

44. Once a new policy is agreed, there will be a need to have a public information campaign as part of the Healthy Ireland or as part of a HSE initiative, similar to the public awareness regarding Folic Acid supplementation for expectant mothers developed by the health promotion unit of the Department of Health in the early 1990s. That information campaign successfully used information leaflets and posters circulated throughout the country via general practitioners, community pharmacists, health board outlets, maternity hospitals and Well Woman clinics. A similar approach, with a greater emphasis on electronic media channels, could be used here.

45. The evidence given to the Committee, based on a Health Research Board (HRB) funded study, has shown a good increase in the uptake of supplements. Prior to the pandemic, the level of adults over 50 who took supplements was 9%, with the majority of those women. The HRB data has shown that this has increased to 23% coverage, which is welcome. With a well-focused campaign, the public will engage with supplementation, and many of these supplements are relatively cheap and can be stocked in supermarkets as well as in pharmacies. In that regard any campaign should highlight the need for the public to engage with their GP and their pharmacist so as to have full knowledge of what is the most appropriate supplement to take.

4.5 Specific measures for certain categories

46. As highlighted in chapter two, the level of Vitamin D deficiency is higher in our older population and in those who are in congregated settings. The Committee was told that the UK Government had, for instance, offered supplementation to institutionalised individuals, including prisoners, since January 2021. In addition to these groups, there may be a need for supplementation as part of an occupational health care strategy for health care workers and for staff in meat plants. The Committee will recommend that, as part of the development of the policy, there is active engagement with Nursing Homes Ireland, the Irish Prison Service, the representatives for healthcare workers, and representatives of staff and management involved in the meat processing industry.

4.6 Affordability of Vitamin D supplementation

47. Vitamin D is cheap, easily accessible and simple to administer. GPs should prescribe Vitamin D supplements for medical card holders, especially for the elderly and for those in vulnerable groups (e.g., those who are overweight or obese and those with darker skin pigmentation and/or who limit their sun exposure) unless clinically contraindicated by a disorder specifically affecting Vitamin D metabolism (e.g. sarcoidosis, TB, lymphoma). For adults who do not hold a medical card, GPs should recommend a daily vitamin D dosage of 20-25ug (800-1000IU), unless clinically contraindicated by a disorder specifically affecting Vitamin D metabolism (e.g., sarcoidosis, TB, lymphoma). This supplement is widely available in pharmacies and supermarkets. To further reduce the cost of Vitamin D supplements and to promote their uptake, the Government could reconsider the current VAT applied, with a view to either reducing or eliminating it.

4.7 Conclusion

48. As the State emerges from the third wave of Covid-19, there is an opportunity to develop a new public health policy that encourages the uptake of Vitamin D supplementation. The promotion of Vitamin D supplementation is a cheap and complementary solution that can be quickly and easily implemented. To further reduce the cost of Vitamin D supplements and to promote its uptake, the Government should reconsider the current VAT applied, with a view to either reducing or eliminating it.

49. There is a need for a public health policy to address Vitamin D deficiency, to actively promote supplements across the population, to target specific vulnerable groups and to implement the public health recommendations to support the policy.

50. Such a policy should outline the scope available to public health authorities to take control of the dissemination of Vitamin D and to increase public knowledge in order to encourage the uptake of supplements. This new policy should be developed in time for consideration as part of Budget 2022 which will be presented to the Dáil in October 2021. In this way, funding of new measures will be in place from January 2022.

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Appendix 2: Terms of Reference

Standing Orders 94, 95 and 96 – scope of activity and powers of Select Committees and functions of Departmental Select Committees.

'Scope and context of activities of Select Committees.

94.(1) The Dáil may appoint a Select Committee to consider and, if so permitted, to take evidence upon any Bill, Estimate or matter, and to report its opinion for the information and assistance of the Dáil. Such motion shall specifically state the orders of reference of the Committee, define the powers devolved upon it, fix the number of members to serve on it, state the quorum, and may appoint a date upon which the Committee shall report back to the Dáil.

(2) It shall be an instruction to each Select Committee that—

(*a*)it may only consider such matters, engage in such activities, exercise such powers and discharge such functions as are specifically authorised under its orders of reference and under Standing Orders;

(*b*) such matters, activities, powers and functions shall be relevant to, and shall arise only in the context of, the preparation of a report to the Dáil;

(*c*) it shall not consider any matter which is being considered, or of which notice has been given of a proposal to consider, by the Joint Committee on Public Petitions in the exercise of its functions under Standing Order 125(1)[20]; and

(*d*) it shall refrain from inquiring into in public session or publishing confidential information regarding any matter if so requested, for stated reasons given in writing, by—

(i) a member of the Government or a Minister of State, or

(ii) the principal office-holder of a State body within the responsibility of a Government Department or

(iii) the principal office-holder of a non-State body which is partly funded by the State,

Provided that the Committee may appeal any such request made to the Ceann Comhairle, whose decision shall be final.

(3) It shall be an instruction to all Select Committees to which Bills are referred that they shall ensure that not more than two Select Committees shall meet to consider a Bill on any given day, unless the Dáil, after due notice to the Business Committee by a Chairman of one of the Select Committees concerned, waives this instruction.

Functions of Departmental Select Committees.

95. (1) The Dáil may appoint a Departmental Select Committee to consider and, unless otherwise provided for in these Standing Orders or by order, to report to the Dáil on any matter relating to—

(*a*) legislation, policy, governance, expenditure and administration of**—**

(i) a Government Department, and

[20] Retained pending review of the Joint Committee on Public Petitions

(ii) State bodies within the responsibility of such Department, and

(*b*) the performance of a non-State body in relation to an agreement for the provision of services that it has entered into with any such Government Department or State body.

(2) A Select Committee appointed pursuant to this Standing Order shall also consider such other matters which—

(a) stand referred to the Committee by virtue of these Standing Orders or statute law, or

(b) shall be referred to the Committee by order of the Dáil.

(3) The principal purpose of Committee consideration of matters of policy, governance, expenditure and administration under paragraph (1) shall be—

(*a*) for the accountability of the relevant Minister or Minister of State, and

(b) to assess the performance of the relevant Government Department or of a State body within the responsibility of the relevant Department, in delivering public services while achieving intended outcomes, including value for money.

(4) A Select Committee appointed pursuant to this Standing Order shall not consider any matter relating to accounts audited by, or reports of, the Comptroller and Auditor General unless the Committee of Public Accounts—

(a) consents to such consideration, or

(b) has reported on such accounts or reports.

(5) A Select Committee appointed pursuant to this Standing Order may be joined with a Select Committee appointed by Seanad Éireann to be and act as a Joint Committee for the purposes of paragraph (1) and such other purposes as may be specified in these Standing Orders or by order of the Dáil: provided that the Joint Committee shall not consider—

(a) the Committee Stage of a Bill,

(b) Estimates for Public Services, or

(c) a proposal contained in a motion for the approval of an international agreement involving a charge upon public funds referred to the Committee by order of the Dáil.

(6) Any report that the Joint Committee proposes to make shall, on adoption by the Joint Committee, be made to both Houses of the Oireachtas.

(7) The Chairman of the Select Committee appointed pursuant to this Standing Order shall also be Chairman of the Joint Committee.

(8) Where a Select Committee proposes to consider—

(a) EU draft legislative acts standing referred to the Select Committee under Standing Order 133, including the compliance of such acts with the principle of subsidiarity,

(b) other proposals for EU legislation and related policy issues, including programmes and guidelines prepared by the European Commission as a basis of possible legislative action,

(c) non-legislative documents published by any EU institution in relation to EU policy matters, or

(d) matters listed for consideration on the agenda for meetings of the relevant Council (of Ministers) of the European Union and the outcome of such meetings, the following may be notified accordingly and shall have the right to attend and take part in such consideration without having a right to move motions or amendments or the right to vote:

(i) members of the European Parliament elected from constituencies in Ireland,

(ii) members of the Irish delegation to the Parliamentary Assembly of the Council of Europe, and

(iii) at the invitation of the Committee, other members of the European Parliament.

(9) A Select Committee appointed pursuant to this Standing Order may, in respect of any Ombudsman charged with oversight of public services within the policy remit of the relevant Department consider—

(*a*) such motions relating to the appointment of an Ombudsman as may be referred to the Committee, and

(c) such Ombudsman reports laid before either or both Houses of the Oireachtas as the Committee may select: Provided that the provisions of Standing Order 130 apply where the Select Committee has not considered the Ombudsman report, or a portion or portions thereof, within two months (excluding Christmas, Easter or summer recess periods) of the report being laid before either or both Houses of the Oireachtas.[21]

Powers of Select Committees.

96. Unless the Dáil shall otherwise order, a Committee appointed pursuant to these Standing Orders shall have the following powers:

(1) power to invite and receive oral and written evidence and to print and publish from time to time—

(a) minutes of such evidence as was heard in public, and

(b) such evidence in writing as the Committee thinks fit;

(2) power to appoint sub-Committees and to refer to such sub-Committees any matter comprehended by its orders of reference and to delegate any of its powers to such sub-Committees, including power to report directly to the Dáil;

(3) power to draft recommendations for legislative change and for new legislation;

(4) in relation to any statutory instrument, including those laid or laid in draft before either or both Houses of the Oireachtas, power to—

(*a*) require any Government Department or other instrument-making authority concerned to—

(i) submit a memorandum to the Select Committee explaining the statutory Instrument, or

[21] Retained pending review of the Joint Committee on Public Petitions.

(ii) attend a meeting of the Select Committee to explain any such statutory instrument: Provided that the authority concerned may decline to attend for reasons given in writing to the Select Committee, which may report thereon to the Dáil,

and

(*b*) recommend, where it considers that such action is warranted, that the instrument should be annulled or amended;

(5) power to require that a member of the Government or Minister of State shall attend before the Select Committee to discuss—

(a) policy, or

(*b*) proposed primary or secondary legislation (prior to such legislation being published),

for which he or she is officially responsible: Provided that a member of the Government or Minister of State may decline to attend for stated reasons given in writing to the Select Committee, which may report thereon to the Dáil: and provided further that a member of the Government or Minister of State may request to attend a meeting of the Select Committee to enable him or her to discuss such policy or proposed legislation;

(6) power to require that a member of the Government or Minister of State shall attend before the Select Committee and provide, in private session if so requested by the attendee, oral briefings in advance of meetings of the relevant EC Council (of Ministers) of the European Union to enable the Select Committee to make known its views: Provided that the Committee may also require such attendance following such meetings;

(7) power to require that the Chairperson designate of a body or agency under the aegis of a Department shall, prior to his or her appointment, attend before the Select Committee to discuss his or her strategic priorities for the role;
(8) power to require that a member of the Government or Minister of State who is officially

responsible for the implementation of an Act shall attend before a Select Committee in relation to the consideration of a report under Standing Order 197;

(9) subject to any constraints otherwise prescribed by law, power to require that principal office-holders of a—

(*a*) State body within the responsibility of a Government Department or

(*b*) non-State body which is partly funded by the State,
shall attend meetings of the Select Committee, as appropriate, to discuss issues for which they are officially responsible: Provided that such an office-holder may decline to attend for stated reasons given in writing to the Select Committee, which may report thereon to the Dáil;
and

(10) power to—

(*a*) engage the services of persons with specialist or technical knowledge, to assist it or any of its sub-Committees in considering particular matters; and
(b) undertake travel;

Provided that the powers under this paragraph are subject to such recommendations as may be made by the Working Group of Committee Chairmen under Standing Order 120(4)(*a*).'

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