7 Use of healthcare services, medications, and health supplements

Georgia Lalor, Niamh Hennelly, Sarah Gibney, Rose Anne Kenny and Mark Ward

Contents

tilda
Staidéar Fadaimseartha na hÉireann um Dhul in Aois
The Irish Longitudinal Study on Ageing

7 Use of healthcare services, medications, and health supplements

Key Findings

- Restrictions due the COVID-19 pandemic have had a dramatic effect on non-COVID-19 related healthcare services in Ireland. This has resulted in an array of healthcare needs being unmet. As older adults have greater healthcare needs, they are likely to be the most affected by this.

- Nearly one-third of adults aged 60 years and older (30%) delayed or did not get medical care that they needed.

- The most common reasons for delaying or cancelling healthcare appointments were: deciding that the appointment could wait (39%), the clinic/hospital/doctor's office cancelling the appointment (25%), the appointment being rescheduled (21%), being unable to get an appointment when needed (21%), being afraid to attend an appointment (18%), other unspecified reason (6%), and being unable to afford the appointment (3%).

- Forty three percent of participants delayed dental care, followed by delayed appointment with a GP (31%), an optician (19%), other services (12%), and minor surgery (10%).

- Not being able to get an appointment (57%) was the primary reason for delaying dental care.

- Among those who delayed a GP appointment, being afraid to go to the appointment was the primary reason (53%).

- Many adults aged 60 and older attended online or telephone consultations with healthcare services. Forty-six percent of older people availed of a telephone or online appointment with a GP, 39% with a pharmacist, 21% with a hospital doctor and 10% with another health professional.

- A large majority of older adults could access hygiene products (gloves; hand sanitiser; masks; and soap) when needed. Among those who reported difficulty in purchasing these products, the main reason given was that they were not available in retail outlets.

- The pandemic had little impact on the use of prescribed medications, with a large majority of older adults (94%) continuing to take the same medications as before the beginning of the pandemic.

- Almost one in seven (14.5%) adults aged 60 years and older have started taking Vitamin D supplements since March 2020. This is in addition to the 9% of TILDA participants who took supplements before the pandemic.

- This chapter provides valuable information on healthcare utilisation in the older population in Ireland, including the effect of the pandemic on the delivery of services and the challenges faced by older people in accessing these services. Furthermore, the findings provide an important baseline for identifying and evaluating the long-term impact of COVID-19 on health outcomes, which may be of particular importance for older people with pre-existing conditions.

7.1 Introduction

This chapter examines the impact of the COVID-19 pandemic on healthcare utilisation among adults aged 60 years and older in Ireland. Non-COVID-19 related health services have been severely curtailed since the beginning of the pandemic, with many elective and routine appointments and services postponed or cancelled. It is important that the extent of this unmet need is detailed so that service providers can plan accordingly. It is also important for policymakers to understand the impact of COVID-19-related restrictions on the health and wellbeing of older adults in order accurately to plan immediate and future service needs.

We know from existing research that delayed access to healthcare has a negative effect on many health outcomes and on mortality. (1, 2) In Ireland, research conducted by TILDA at the beginning of the COVID-19 pandemic provides a comprehensive picture of healthcare utilisation in Ireland among those aged 50 years or older. (3) Healthcare utilisation tends to increase with age; for example, the proportion of those aged 70 years or older using home care services and public health nurse services is higher than the proportion aged 50 and over. (3) Frailty is also associated with higher healthcare utilisation in Ireland. (4) There is however limited evidence on the impact of the pandemic on non-COVID-19 healthcare utilisation in Ireland. (5) One national online survey reported that 32% of respondents had postponed medical treatment during the pandemic. (6) A day hospital study meanwhile showed the extent of unmet health need because of the pandemic in frailer outpatients. (7)

Globally, there has been a similar decline in healthcare utilisation. Preliminary findings from a systematic review of 81 studies across 20 countries reported an average decline of 37% in healthcare utilisation. (8) More specifically, studies of populations aged 50 years or older outline how the reduction in healthcare utilisation is likely driven by several factors, including appointments being cancelled by the service provider, patients being unable to get access to an appointment and patients themselves cancelling appointments. (9, 10) The English Longitudinal Study of Ageing (ELSA) COVID-19 sub-study found that 14% of participants, aged 50 years and over, who required health services did not try to access them during the studied period, while approximately 20% of people with multimorbidities who needed health services were unable to access them. (9) Preliminary findings from a German study of over 2 million patients aged 65 years or over found that hospital admissions decreased significantly from February to May 2020, ranging from a 28% to a 50% decrease, when compared to 2019 figures for the same months. (11) It is likely that similar patterns are present in Ireland.

The aim of this chapter is to examine the impact of the COVID-19 pandemic on healthcare utilisation in those aged 60 years or older in Ireland. It provides an overview of healthcare utilisation in this population as a whole, and for adults aged 60-69 and adults aged 70 years or over. Differences in health service utilisation related to age and other sociodemographic factors such as gender, educational attainment and location are also reported.

7.2 Methods

The TILDA COVID-19 SCQ included a detailed section on the level of unmet need among adults aged 60 years and older. Participants were asked: “Since the outbreak of the COVID-19 pandemic in March 2020, was there any time when you needed medical (including dental) care, but delayed it, or did not get it at all?" Participants who did delay or cancel medical care were asked to detail the reason for the delay or cancellation. The possible responses to this question were: I could not afford it; I could not get an appointment; the clinic/hospital/doctor’s office cancelled; the clinic/hospital/doctor’s office rescheduled; I decided it could wait; I was afraid to go

As well as the overall level of unmet need, information was collected about the type of care that was delayed or cancelled. The healthcare services included were: major surgery (requiring a hospital stay of one or more nights); public health or community nurse; minor surgery as an outpatient or day case; occupational therapy; general practitioner (GP); physiotherapy; prescription renewal; psychological/counselling; medications; hearing assessments; dental care; respite care; optician.

Participants also provided information on access to recommended hygiene products. Participants specifically detailed access to soap, hand sanitiser, protective face masks and protective gloves. Where difficulty in accessing these products was reported, information was sought on whether this was due to cost, availability, or an inability to access in shops. As some healthcare services, including GP appointments, currently offer consultations online or by telephone, we also document the extent of such remote consultations among older adults. Finally, the questionnaire included questions to capture changes in the use of prescribed medications and health supplements. Participants who changed prescribed medications since the beginning of the pandemic were then asked about the reason was for this change. The response categories were: doctor’s advice; pharmacist’s advice; could not afford the medication; could not get medication from the pharmacy; personal decision. Finally, participants reported whether they had commenced taking certain health supplements. The following supplements were included: multi-vitamins; zinc; iron; vitamin D; any B vitamins; folic acid; fish oil.

7.3 Results

7.3.1 Delays in medical care

Table 7.1 shows the percentage of adults who delayed getting medical care since the outbreak of the pandemic, grouped by sociodemographic characteristics. Overall, 30% of older people aged 60 and over delayed or did not get the medical care they required. The percentage who delayed or did not get medical care varied by gender and level of education, with women and those with a higher level of education more likely to delay getting medical care. There are no differences between adults aged 60-69 and those over 70 years, or between those living urban or rural locations.

Table 7.1. Proportion of older adults delaying medical care by gender, age, education level and location

	No		Yes		N
	%	95% CI	%	95% CI	
Gender					
Male	73	[70-75]	27	[25-30]	1413
Female	68	[65-70]	32	[30-35]	1704
Age group					
<70 years	73	[70-76]	27	[24-30]	1478
70+ years	67	[64-70]	33	[30-36]	1639
Education					
Primary/none	69	[65-73]	31	[27-35]	530
Secondary	73	[70-75]	27	[25-30]	1224
Third/higher	66	[63-69]	34	[31-37]	1363
Location					
Urban	69	[67-72]	31	[28-33]	1726
Rural	71	[68-74]	29	[26-32]	1391
Total	70	[68-72]	30	[28-32]	3117

Among participants who delayed getting medical care, the most common reasons were deciding that the appointment could wait (39%); followed by the clinic/hospital/doctor's office cancelling the appointment (25%); the appointment being rescheduled (21%); not being able to get an appointment when needed (21%); being afraid to attend an appointment (18%); other unspecified reason (6%); and not being able to afford the appointment (3%). As shown in Figures 7.1 and 7.2, a greater proportion of men (27%)

and adults aged 60-69 years (27%) could not get an appointment compared to women (16%) and adults aged 70 and over (16%).

Figure 7.1. Percentage of participants being unable to get an appointment by gender

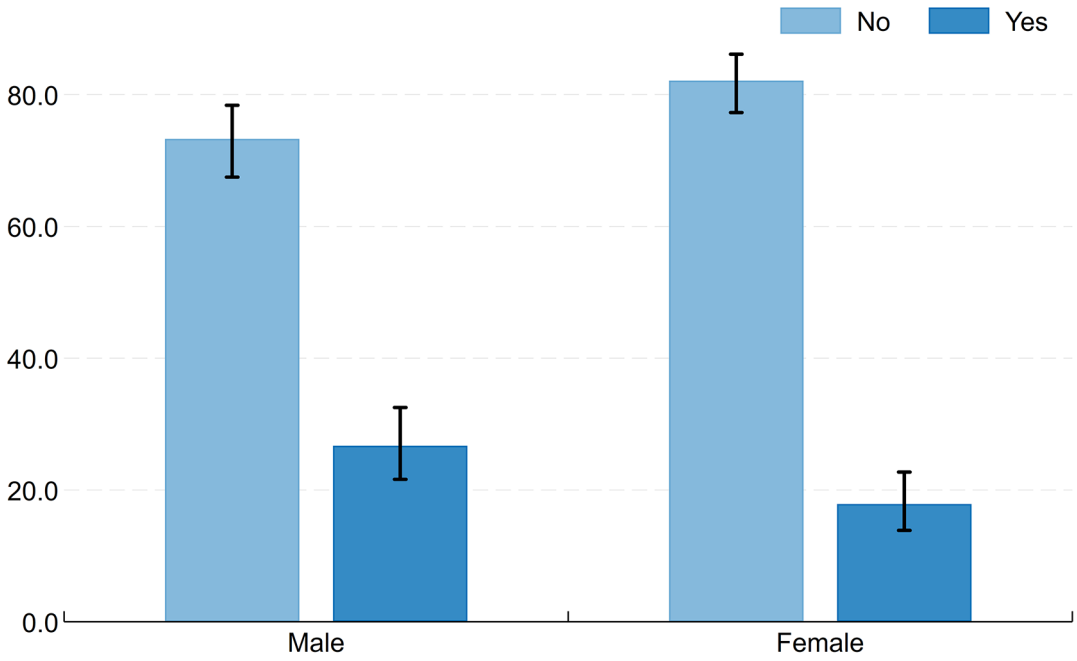
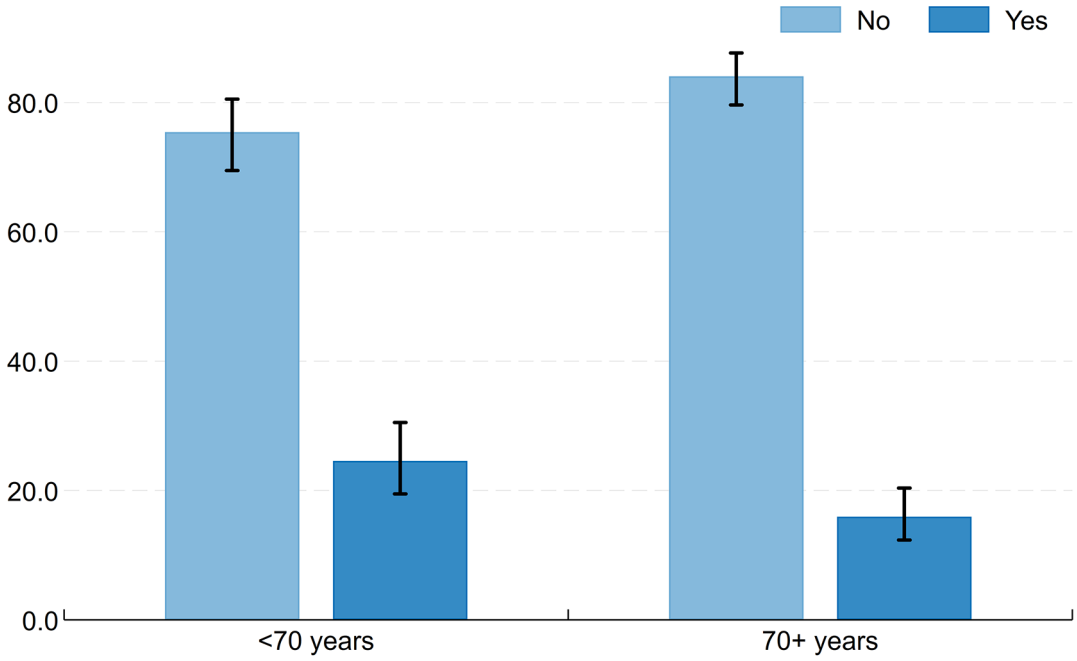
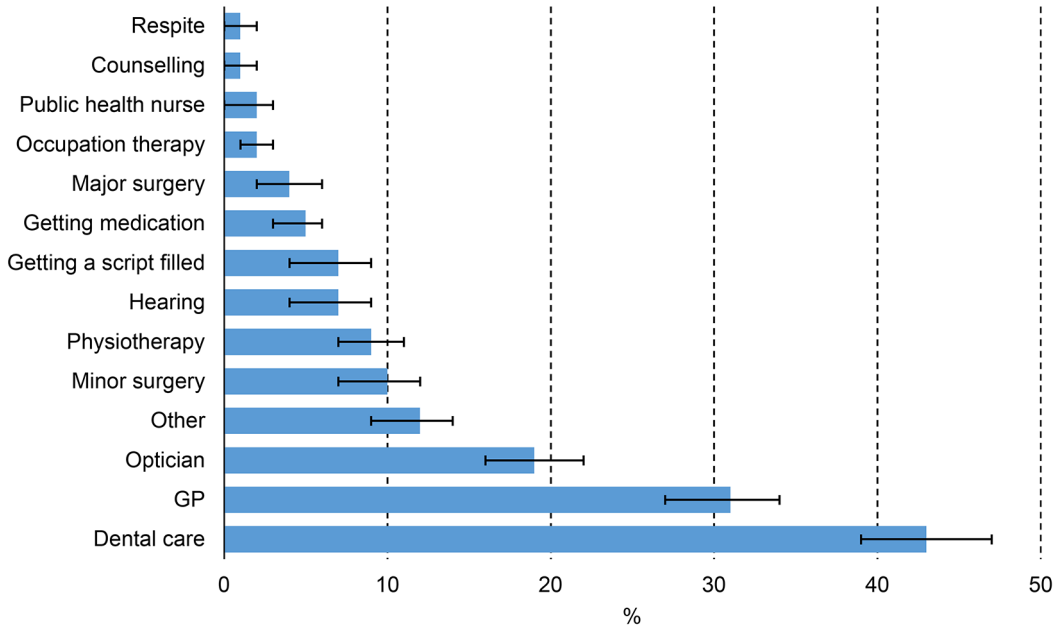


Figure 7.2. Percentage of participants being unable to get an appointment by age



As shown in Figure 7.3, dental care is the service that older people were most likely to delay, with nearly half (43%) of participants delaying this service. This is followed by GP appointments (31%), optician appointments (19%), other services (12%) and delays in minor surgery (10%).

Figure 7.3. Type of medical appointments delayed



A higher percentage of adults aged 60-69 (54%) compared to adults 70 and older (34%), and a higher percentage of adults with third level (56%), compared to secondary (46%) and primary (33%) education, delayed dental care. There was no significant difference for gender and urban versus rural location in delayed dental care. Groups who delayed other types of care such as GP, optician and minor surgery did not differ in demographics.

Not being able to get an appointment (57%) was the primary reason for delaying dental care, followed by being afraid to go (54%), deciding it could wait (53%) and cancellation (44%). By contrast, of those who delayed a GP appointment, being afraid to go was the primary reason given (53%), followed by deciding that the appointment could wait (40%), not being able to get an appointment (38%), other unspecified reason (37%) and cancellation (25%).

7.3.3 Telephone and online consultations

As shown in Table 7.2, 46% of participants availed of a telephone or online appointment with a GP, 39% with a pharmacist, 21% with a hospital doctor and 10% with another health professional. More women than men availed of an appointment with a pharmacist online/ by phone, but otherwise gender was not associated with patterns of access or behaviours. Differences between age groups are seen for those who availed of an appointment with a GP, pharmacist and doctor online/over the phone, with a greater proportion of adults aged 70 and over availing of an appointment with a GP and hospital doctor. By contrast, more adults aged between 60 and 69 years availed of an online or telephone appointment with a pharmacist. Finally, differences between adults living in an urban versus rural location were apparent for all online/over the phone appointments, with a greater proportion of urban dwelling adults availing of these services.

Table 7.2. Rate of online or telephone appointments by gender, age, education and location

	Online GP % (95% CI)	Online Pharmacist % (95% CI)	Online Doctor % (95% CI)	Online Other % (95% CI)
Gender				
Male	44 [40-47]	36 [32-39]	20 [17-24]	10 [8-13]
Female	47 [44-51]	43 [39-46]	22 [18-25]	10 [7-12]
Age Groups				
60 to 69 years	41 [37-44]	32 [29-36]	18 [15-22]	9 [7-12]
≥70 years	51 [47-54]	45 [42-49]	24 [21-27]	11 [9-13]
Education				
Primary/none	45 [40-50]	41 [36-46]	25 [20-30]	5 [3-8]
Secondary	47 [44-50]	40 [36-43]	20 [17-23]	11% [9-14]
Third/higher	43 [40-47]	35 [32-38]	16 [14-19]	15 [12-18]
Location				
Urban	49 [46-55]	42 [38-45]	24 [21-28]	12 [10-15]
Rural	41 [37-44]	36 [32-40]	16 [14-20]	7 [8-12]
Total	46 [43-48]	39 [37-42]	21 [19-23]	10 [8-12]

7.3.4 Access to personal protective items

As shown in Table 7.3, most older adults could access these personal protective items, with a low percentage reporting inability to access sanitiser (14%), masks (12%), gloves (9%) and soap (6%). Among those who could not access these items, the most common reason was lack of availability in stores: gloves (67%), hand sanitiser (83%), masks (73%) and soap (88%).

Table 7.3. Rate of purchasing personal protective products

	No		Yes		Did not need		N
	%	95% CI	%	95% CI	%	95% CI	
Gloves	77	[75-79]	9	[8-10]	14	[13-16]	2951
Sanitiser	74	[72-76]	14	[13-16]	11	[10-13]	3051
Masks	76	[74-78]	12	[11-14]	11	[10-13]	2993
Soap	79	[77-81]	6	[5-7]	15	[14-17]	2936

7.3.5 Medication and supplement use

Participants were asked whether they had started or stopped taking prescribed medication since the outbreak of the COVID-19 pandemic. As shown in Table 7.4, the majority of older people report taking the same medications as before the pandemic, with only 5% starting a newly prescribed medication, while 1% stopped taking a prescribed medication. Those who commenced a new medication were more likely to be aged between 60-69 compared to those aged 70 and over; educated to third level compared to both secondary and primary level; and living in an urban location compared to a rural location.

Table 7.4. Changes in medication use by gender, age, education and location

	No, I am taking the same medications		Yes, I have stopped taking a prescription medication		Yes, I have started taking a new prescribed medication		N
	%	95% CI	%	95% CI	%	95% CI	
Gender							
Male	97	[95-98]	1	[0-2]	2	[2-4]	1259
Female	93	[91-95]	1	[0-2]	6	[4-8]	1581
Age group							
<70 years	94	[92-96]	1	[1-2]	4	[3-6]	1250
70+ years	95	[93-96]	1	[0-1]	5	[4-6]	1603
Education							
Primary/none	95	[92-97]	1	[0-2]	5	[3-7]	521
Secondary	95	[93-96]	1	[0-2]	4	[3-6]	1113
Third/higher	93	[91-94]	2	[1-3]	6	[4-7]	1219
Location							
Urban	93	[91-94]	1	[1-2]	6	[5-8]	1594
Rural	97	[95-98]	1	[0-2]	2	[2-4]	1259
Total	94	[93-95]	1	[1-2]	5	[4-6]	2853

Finally, the most frequent supplement taken was vitamin D (14%), followed by vitamin C (11%), multivitamins (8%), fish oil (8%), zinc (4%), iron (2%) and folic acid (1%). More women than men took vitamin D (17% vs. 11%), vitamin C (13% vs. 8%), and multivitamins.

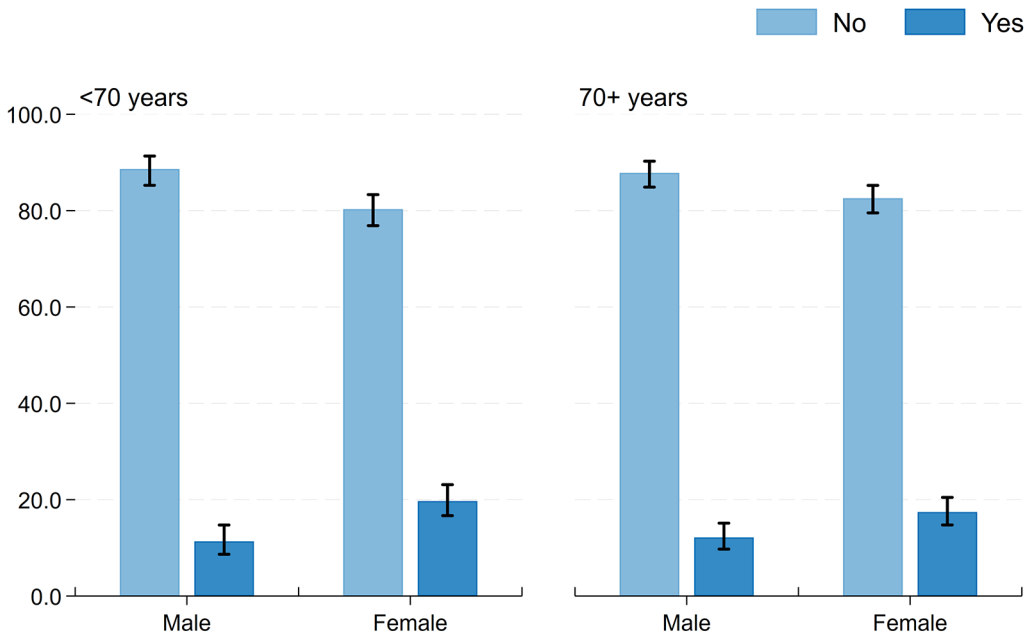
Recent observational studies and randomised controlled trials have shown an association between vitamin D deficiency and the severity of COVID-19 symptoms. These studies also suggest that vitamin D may play a role in prevention of COVID-19 as well as the severity of the response to COVID. (12) Given the potential importance of Vitamin D, TILDA recently published a brief research report on Vitamin D supplement use during the pandemic (13) and we have reproduced some of this analysis here. The proportion of people taking vitamin D increases with the level of educational attainment; 20% of those with third level education report taking this vitamin, compared to 12% with secondary education and 12% with primary. No other differences related to sociodemographic characteristics were evident.

Almost one in seven (14.5%) adults aged 60 years and older commenced taking vitamin D supplements since March 2020. This is in addition to the 9% of TILDA participants who took the supplement prior to the pandemic. (11)

Women (17.3%) were more likely than men (11.1%) to have commenced taking vitamin D since the pandemic. Vitamin D supplement use was also higher in women prior to March; 15% of women and 4% of men were taking vitamin D in the 2018/19 wave of data collection.

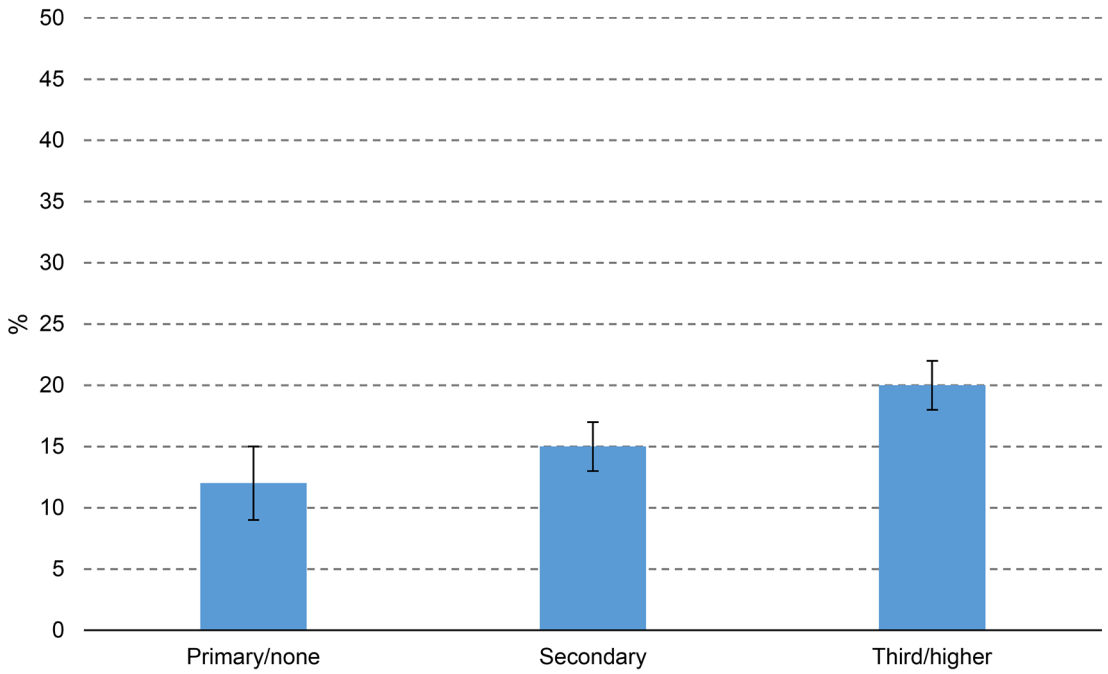
Figure 7.4 shows the percentage of older adults who began taking vitamin D supplements by gender and age. While there was no difference in terms of age, women in both age groups were more likely than men to have started taking vitamin D supplements.

Figure 7.4 Percentage of adults who began taking vitamin D supplements by gender and age group



As shown in Figure 7.5, older adults who had completed third level education were more likely to commence vitamin D supplements: 20% compared with 15% (secondary level) and 12% (primary level education or less).

Figure 7.5. Percentage of adults who commenced vitamin D supplements since the pandemic by education level



7.4 Discussion

Findings from this chapter highlight the impact of COVID-19 on utilisation of non-COVID-19-related healthcare services in people aged 60 years and older in Ireland.

Consistent with global trends, nearly one third of older people in the current study have been delaying medical care since the outbreak of the pandemic, with dental, GP and optician services being most commonly delayed. Recent TILDA research on healthcare utilisation in the twelve -month period prior to the March 2020 reported that GP care (93%) was the most commonly utilised primary healthcare service and that optician care was the most commonly used allied health service (15%). (3) These are the services which show the largest decline in use during the pandemic. The primary reasons given for delaying access to these services or for not getting an appointment was a decision that the appointment could wait; the appointment being cancelled or rescheduled by the clinic/ hospital/doctor's office; and not being able to get an appointment.

The pandemic has caused a shift in how healthcare services are delivered, with attention now focused on new models of care that avoid face-to-face contact such as tele and online consultations. (13) This chapter highlights the increase in use of online consultations

during the pandemic, with a significant majority of those over 60 reporting having a telephone or online consultation with their GP and/or pharmacist. A higher proportion of those aged 70 years and older availed of an online/telephone GP appointment, a finding that is consistent with prior reports on patterns of face-to-face GP consultations.

As discussed, recent evidence has shown the important link between vitamin D deficiency and the severity of COVID-19 symptoms. Furthermore, the evidence demonstrates the immuno-regulatory properties of vitamin D, in particular its role in regulating and supressing the inflammatory response to viral infections such as COVID-19. (12, 13) This evidence is of considerable importance given the high prevalence of vitamin D insufficiency in the older population, which is over 60% in winter and over 80% in those 80 years and older. An additional 14.5% of adults aged 60 and older started taking Vitamin D since the pandemic began. (13) Both prior and new supplement use was more common for women.

In conclusion, this chapter provides valuable information on the utilisation of healthcare services in older adults aged over 60 in Ireland during the pandemic, and on effect of the pandemic on the mode of delivery of services and the challenges faced by older people in accessing them. The findings provide an important baseline for research on the long-term impact of COVID-19 on health services and mental and physical health outcomes, which may be of particular importance for people with pre-existing comorbidity. Prospective studies should therefore investigate the long-term effects of the COVID-19 pandemic on health and patient-related outcomes among older persons in Ireland.

References

1. Prentice JC, Pizer SD. Delayed Access to Health Care and Mortality. Health Services Research. 2007;42(2):644-62.

2. Wang S-Y, Chen L-K, Hsu SH, Wang S-C. Health care utilization and health outcomes: a population study of Taiwan. Health Policy and Planning. 2012;27(7):590-9.

3. Roe L, McGarrigle C, Hernández B, O'Halloran A, Scarlett S, Ward M, et al. Patterns in health service utilisation: Results from Wave 5 of the Irish Longitudinal Study on Ageing. Trinity College, Dublin: The Irish Longitudinal Study on Ageing (TILDA); 2020.

4. Roe L, Normand C, Wren M-A, Browne J, O'Halloran AM. The impact of frailty on healthcare utilisation in Ireland: evidence from the Irish longitudinal study on ageing. BMC Geriatrics. 2017;17(1):203.

5. Kennelly B, O'Callaghan M, Coughlan D, Cullinan J, Doherty E, Glynn L, et al. The COVID-19 pandemic in Ireland: An overview of the health service and economic policy response. Health Policy and Technology. 2020;9(4):419-29.

6. NUIG. Corona Citizens Science Project- Wave 2 Results 2020 [Available from: http://www.nuigalway.ie/corona-study/results2/.

7. Bailey, L., Ward, M., DiCosimo, A. et al. Physical and Mental Health of Older People while Cocooning during the COVID-19 Pandemic, QJM: An International Journal of Medicine, 2021;, hcab015, https://doi.org/10.1093/qjmed/hcab015

8. Moynihan R, Sanders S, Michaleff ZA, Scott A, Clark J, To EJ, et al. Pandemic impacts on healthcare utilisation: a systematic review. medRxiv. 2020:2020.10.26.20219352.

9. Zaninotto P, Di Gessa G, Steel N. The experience of older people with multimorbidity during the COVID-19 pandemic. UK: ELSA; 2020.

10. Wong SYS, Zhang D, Sit RWS, Yip BHK, Chung RY, Wong CKM, et al. Impact of COVID-19 on loneliness, mental health, and health service utilisation: a prospective cohort study of older adults with multimorbidity in primary care. Br J Gen Pract. 2020;70(700):e817-e24.

11. Michalowsky B, Hoffmann W, Bohlken J, Kostev K. Effect of the COVID-19 Lockdown on Disease Recognition and Utilization of Healthcare Services in the Older Population in German: A Cross-sectional Study. Age Ageing. 2020.

12. McCartney, D., O'Shea, P., Faul, J. et al. Vitamin D and SARS-CoV-2 infection—evolution of evidence supporting clinical practice and policy development A position statement from the Covid-D Consortium. Irish Journal of Medical Science (1971-) https://doi.org/10.1007/s11845-020-02427-9

13. Kenny RA (2020) Uptake of vitamin D supplements during the COVID-19 pandemic. TILDA, Dublin. https://tilda.tcd.ie/CovidData/reports/pdfs/Vitamin%20D%20supplements.pdf

14. Laird E, Kenny RA (2020) Vitamin D deficiency in Ireland – implications for COVID-19 - results from The Irish Longitudinal Study on Ageing (TILDA). TILDA, Dublin https://tilda.tcd.ie/publications/reports/pdf/Report_Covid19VitaminD.pdf