



2020

**TILDA REPORT TO INFORM  
DEMOGRAPHICS  
FOR OVER 50s IN IRELAND  
FOR COVID-19 CRISIS**

**tilda**

Staidéar Fadaimseartha na  
hÉireann um Dhul in Aois

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The Irish Longitudinal  
Study on Ageing



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# **TILDA REPORT TO INFORM DEMOGRAPHICS FOR OVER 50s IN IRELAND FOR COVID-19 CRISIS**

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Rose Anne Kenny, Belinda Hernández, Aisling O'Halloran, Frank Moriarty, Christine McGarrigle

On behalf of the TILDA team

**March 2020**

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TILDA report to inform demographics for over 50s in Ireland for COVID-19 crisis.

Authors: Rose Anne Kenny, Belinda Hernández, Aisling O'Halloran, Frank Moriarty, Christine McGarrigle.

### Executive Summary:

TILDA is a Longitudinal Study on Ageing, which at wave 1 (2009) represented 1:156 people aged 50 and older in Ireland. TILDA collects detailed subjective and objective measures of health, social circumstances and economics every two years. These interviews are delivered in participants home using computerised technologies (CAPI). Core objective health measures are also collected at each wave in the home and more detailed health assessments are delivered at alternate data sweeps in a health assessment centre or in the participants home. Response rates at wave 1 were 62%. Wave 1 commenced in 2009; wave 5 in 2018.

To assist with planning for COVID-19 we have analysed the following to help identify numbers in at-risk cohorts based on extant national and international data for at-risk groups ie frailty, pre frailty; cardiovascular and chronic conditions; comorbidities; possible at- risk CVD and anti-inflammatory medications\*; and living/household circumstances (social isolation) including grandparenting; community social care and health service utilisation.

We find that **126300** people aged over 50 live alone, **36000** of whom are living with an ADL functional disability, and **57800** are aged over 70 years. In total 16%, equivalent to **234200**, have no children. For the remainder children live in the same house (26%), in the same county (45%), in another county (9%) or another country (4%).

Of those **over 70 years** 79,851 are frail (18.9%), 217,101 are pre-frail (50.5%) and 43,448 are living alone (10.8%). Of those over 70 years who are living alone 12,704 are frail (28.1%) and 18,279 are pre-frail (44.3%).

Numbers **over 50 years** with Hypertension 749845, Asthma 185002, Diabetes Mellitus 182833, Cancer past or present 167500, Chronic lung disease such as chronic bronchitis or emphysema 123383, 3 or more comorbidities 706624.

Numbers prescribed possible at-risk medications for ACE2 upregulation: ACE inhibitors 247923; ARB (angiotensin II Antagonist) 218126; Ibuprofen 15188.

Overall 9% receive help from a family caregiver, the equivalent of **75,800** people. The majority of these were aged over 70 years (**54,500**).

Overall 31.5% of the population aged over 50 provide childcare for their grandchildren and the mean number of hours in the last month was 2.5 hours (Interquartile range 1-4) although 9% provided more than 40 hours in the past month. This equates to **352,100** people with **93,000** providing more than 40 hours in the past month.

*\*“Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infects host cells through ACE2 receptors, leading to coronavirus disease (COVID-19)-related pneumonia, while also causing acute myocardial injury and chronic damage to the cardiovascular system. Therefore, particular attention should be given to cardiovascular protection during treatment for COVID-19...*

*ACE2 levels can be increased by the use of renin–angiotensin–aldosterone system inhibitors. Given that ACE2 is a functional receptor for SARS-CoV-2, the safety and potential effects of antihypertension therapy with ACE inhibitors or angiotensin-receptor blockers in patients with COVID-19 should be carefully considered....*

*whether patients with COVID-19 and hypertension who are taking an ACE inhibitor or angiotensin-receptor blocker should switch to another antihypertensive drug remains controversial, and further evidence is required.”*

<https://www.nature.com/articles/s41569-020-0360-5>;

[https://www.thelancet.com/pdfs/journals/lanres/PIIS2213-2600\(20\)30116-8.pdf](https://www.thelancet.com/pdfs/journals/lanres/PIIS2213-2600(20)30116-8.pdf)

### Weights

Weights were used in all cases to make estimates relevant to the general population of over 50s in Ireland. In this instance longitudinal weights which account for participant attrition between wave 1 and wave 5 were used. To calculate these weights the underlying probability of being included in the computer assisted personal interview (CAPI) was multiplied by the reciprocal of the probability of participating in all 5 TILDA waves. This probability was calculated using a logistic regression with the following predictors: age, sex, education level, age, marital status, geographic location, smoking status, health insurance, medications, socio-economic stratum, self-rated health, disabilities, depression, employment status, cardiovascular conditions, diabetes, vision, cognitive status and whether has wrist or hip fractures.

Frailty, Pre Frailty and home circumstances and community health service supports among the over 50s in Ireland.

Author: Aisling O'Halloran

### Introduction

The following will give an overview of the numbers of people over 50 in Ireland classified by the phenotype frailty status as captured by Wave 5 of TILDA.

The phenotype frailty status is classified by the presence in an individual of five phenotypic criteria namely exhaustion/fatigue, unintended weight loss, slow walking speed, muscle weakness and low levels of physical activity.

The presence of none, 1-2 and  $\geq 3$  of these criteria indicates that an individual is non-frail, pre-frail or frail respectively. Pre-frail individuals are at an intermediate stage in the development of frailty and are at a higher level of adverse health outcomes than non-frail individuals. Frailty is a precursor state on the disability cascade. Individuals living with frailty are at increased risk of developing disabilities, adverse health outcomes, increased hospital admission, transition to long-term care and mortality.

The number of people living with phenotype pre-frailty and frailty will be reported. The numbers of people living alone by frailty status will also be provided. In the final section, the numbers of people accessing support services in the community e.g. home help, personal care, meals-on wheels and home care packages will be reported by frailty status and by the age groups 65-74 and 75+ at wave 5 of the TILDA study.

All estimates are based on data from the most recent wave 5 of TILDA (collected in 2018, n=5,206 respondents) and population estimates are based on figures collected from the most recent 2016 census data (which reported a total of 1,446,460 people over 50 living in Ireland. It should be noted that the TILDA sampling frame does not include people with dementia at baseline or people living in nursing homes and as such this data may slightly underestimate prevalence for the total population in Ireland.

For estimates of phenotype frailty prevalence all numbers are calculated based on the presence of the five phenotype criteria among respondents at wave 5 (2018).

In all cases population numbers have been rounded to the nearest 100.

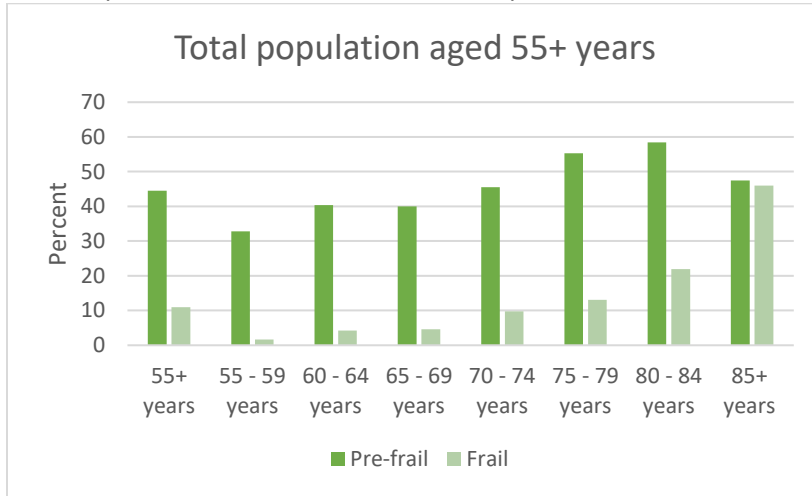
Population estimates of adults aged 50 and over in Ireland.

Enumerated Population CSO Census 2016 and TILDA Wave 5 2018 (Number) by Sex and Age Group		
	CSO 2016	TILDA 2018
<b>Male</b>		
<b>50+ years</b>	<b>697,605</b>	<b>2,286</b>
50 - 54 years	148,212	1
<b>55+ years</b>	<b>549,393</b>	<b>2,285</b>
55 - 59 years	133,858	182
60 - 64 years	118,698	503
65 - 69 years	104,961	464
70 - 74 years	79,501	419
75 - 79 years	54,117	345
80 - 84 years	35,196	223
85 years and over	23,062	149
<b>Female</b>		
<b>50+ years</b>	<b>748,855</b>	<b>2,920</b>
50 - 54 years	151,723	58
<b>55+ years</b>	<b>597,132</b>	<b>2,862</b>
55 - 59 years	136,244	308
60 - 64 years	120,158	644
65 - 69 years	106,275	564
70 - 74 years	82,771	532
75 - 79 years	61,350	353
80 - 84 years	45,841	232
85+ years	44,493	229
<b>Total</b>		
<b>50+ years</b>	<b>1,446,460</b>	<b>5,206</b>
50 - 54 years	299,935	59
<b>55+ years</b>	<b>1,146,525</b>	<b>5,147</b>
55 - 59 years	270,102	490
60 - 64 years	238,856	1,147
65 - 69 years	211,236	1,028
70 - 74 years	162,272	951
75 - 79 years	115,467	698
80 - 84 years	81,037	455
85+ years	67,555	378

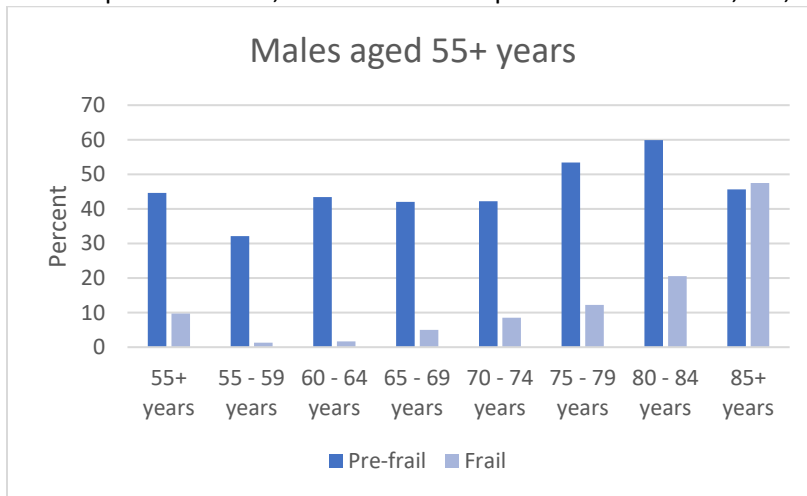


## Phenotype Frailty by Age and Gender

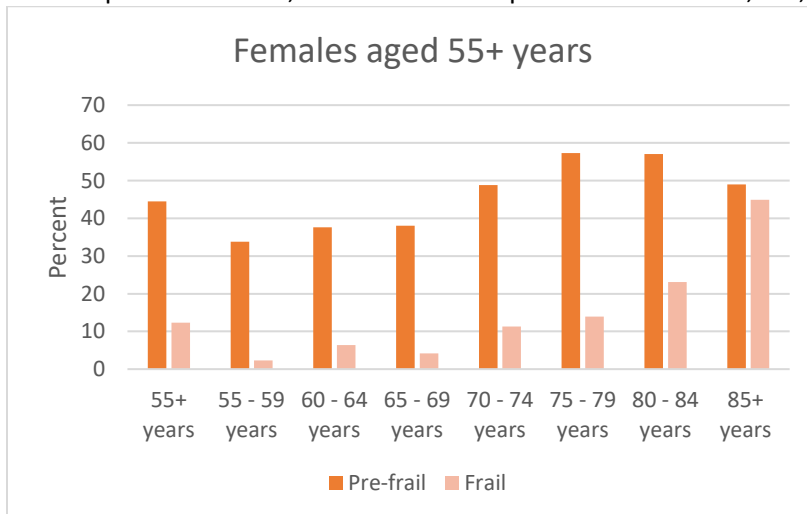
Total Pop % - Frail: 11.0; Pre-frail: 44.5. Pop Number - Frail: 126,118; Prefrail: 510,204



Total Pop % - Frail: 9.7; Pre-frail: 44.6. Pop Number - Frail: 53,291; Prefrail: 245,029



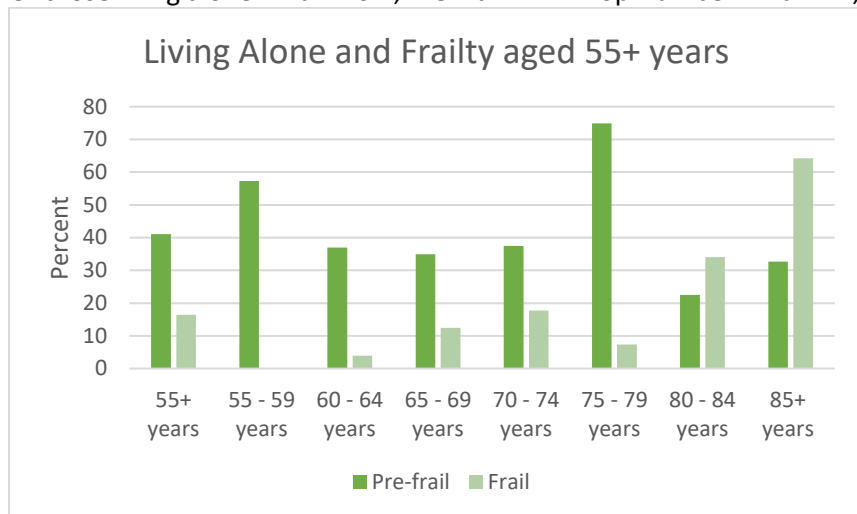
Total Pop % - Frail: 12.3; Pre-frail: 44.5. Pop Number - Frail: 73,447; Prefrail: 265,724



Percent prevalence of phenotype frailty status in TILDA (2018) extrapolated to CSO population estimate data from 2016							
Age group	TILDA (% , 2018)			CSO (n, 2016)			
	Non-frail	Pre-frail	Frail	Non-frail	Pre-frail	Frail	Total
<b>Male</b>							
55+ years	45.7	44.6	9.7	251,073	245,029	53,291	549,393
55 - 59 years	66.6	32.1	1.3	89,149	42,968	1,740	133,858
60 - 64 years	54.9	43.4	1.7	65,165	51,515	2,018	118,698
65 - 69 years	53	42	5	55,629	44,084	5,248	104,961
70 - 74 years	49.3	42.2	8.5	39,194	33,549	6,758	79,501
75 - 79 years	34.4	53.4	12.2	18,616	28,898	6,602	54,117
80 - 84 years	19.5	59.9	20.6	6,863	21,082	7,250	35,196
85+ years	6.9	45.6	47.5	1,591	10,516	10,954	23,062
<b>Female</b>							0
55+ years	43.2	44.5	12.3	257,961	265,724	73,447	597,132
55 - 59 years	63.9	33.8	2.3	87,060	46,050	3,134	136,244
60 - 64 years	56	37.6	6.4	67,288	45,179	7,690	120,158
65 - 69 years	57.8	38	4.2	61,427	40,385	4,464	106,275
70 - 74 years	39.9	48.8	11.3	33,026	40,392	9,353	82,771
75 - 79 years	28.8	57.3	13.9	17,669	35,154	8,528	61,350
80 - 84 years	19.9	57	23.1	9,122	26,129	10,589	45,841
85+ years	6.1	49	44.9	2,714	21,802	19,977	44,493
<b>Total</b>							0
55+ years	44.5	44.5	11.0	510,204	510,204	126,118	1,146,525
55 - 59 years	65.5	32.8	1.7	176,917	88,593	4,592	270,102
60 - 64 years	55.4	40.4	4.2	132,326	96,498	10,032	238,856
65 - 69 years	55.4	40	4.6	117,025	84,494	9,717	211,236
70 - 74 years	44.7	45.5	9.8	72,536	73,834	15,903	162,272
75 - 79 years	31.6	55.3	13.1	36,488	63,853	15,126	115,467
80 - 84 years	19.7	58.4	21.9	15,964	47,326	17,747	81,037
85+ years	6.5	47.5	46	4,391	32,089	31,075	67,555

## Living Alone by Phenotype Frailty and Age

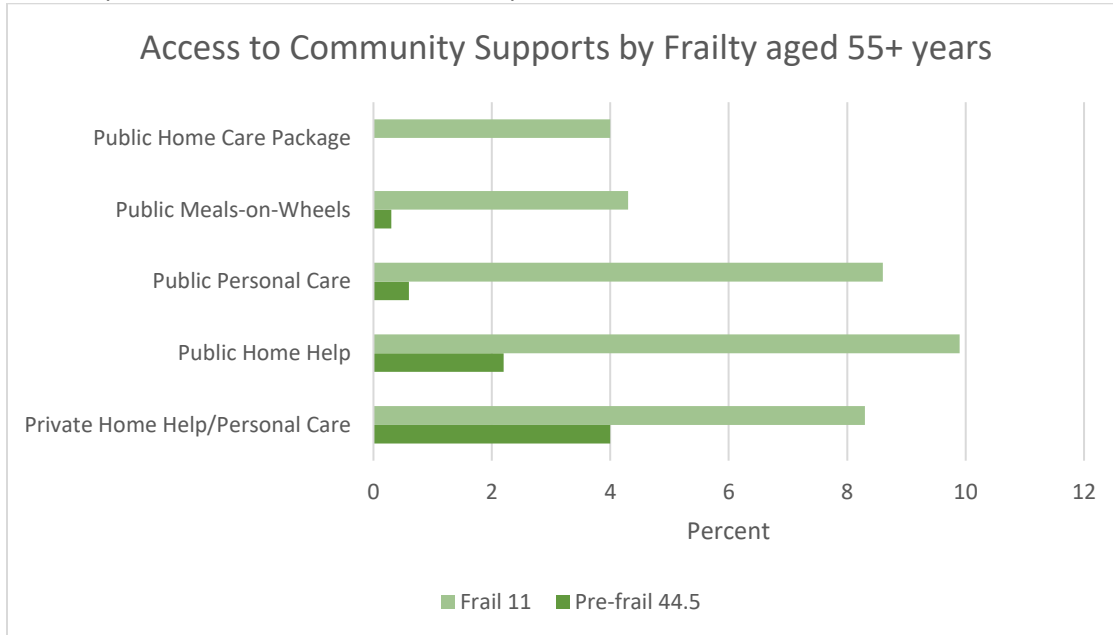
Of those living alone - Frail: 16.4; Pre-frail: 41.1. Pop Number - Frail: 17,571; Prefrail: 44,043



Percent prevalence of living alone by frailty status in TILDA (2018) extrapolated to CSO population estimate data from 2016						
Age group	TILDA (% , 2018)			CSO (n, 2016)		
	Non-frail	Pre-frail	Frail	Non-frail	Pre-frail	Frail
<b>Total</b>						
<b>55+ years</b>	<b>42.5</b>	<b>41.1</b>	<b>16.4</b>	<b>45,543</b>	<b>44,043</b>	<b>17,574</b>
55 - 59 years	42.7	57.3	0	7,727	10,369	0
60 - 64 years	59.1	37.0	3.9	13,975	8,749	922
65 - 69 years	52.7	34.9	12.4	11,577	7,667	2,724
70 - 74 years	44.8	37.5	17.7	6,470	5,416	2,556
75 - 79 years	17.8	74.9	7.3	1,809	7,611	742
80 - 84 years	43.5	22.5	34	3,878	2,006	3,031
85+ years	3.0	32.7	64.2	298	3,247	6,375

Community supports by phenotype frailty and age group.

Total Pop % - Frail: 11.0; Pre-frail: 44.5. Pop Number - Frail: 126,118; Prefrail: 510,204



Percent access to community supports by frailty status in TILDA (2018) extrapolated to CSO population estimate data from 2016				
	TILDA (% , 2018)		CSO (n, 2016)	
	Pre-frail	Frail	Pre-frail	Frail
<b>Pop 55+ years</b>	44.5	11.0	510,204	126,118
Private Home Help/ Personal Care	4.0	8.3	20,408	10,468
Public Home Help	2.2	9.9	11,224	12,486
Public Personal Care	0.6	8.6	3,061	10,846
Public Meals-on-Wheels	0.3	4.3	1,531	5,423
Public Home Care Package	0.0	4.0	0	5,045

Private Home Help.

3.2% reported paying for Private Home Help or Personal Care, equivalent to 36,689 aged 55+ years.

- Of these, 29.7% were frail and 58.6 were pre-frail, equivalent to 10,897 and 21,500 individuals respectively.

- Of these, 15.3% were aged 65-74 years and 80.2% were aged 75 and over, equivalent to 5,613 and 29,425 individuals respectively.

#### Public Home Help

3.4% Reported Public Home Help, equivalent to 38,982 individuals aged 55+ years

- Of these, 44.9% each were frail and pre-frail, equivalent to 17,503 in each group respectively.
- Of these, 10.1% were aged 65-74 years and 88.4% were aged 75+, equivalent to 3,937 and 43,460 individuals respectively.

#### Public Personal Care Attendant

1.6% Reported Public Personal Care Attendant, equivalent to 18,344 individuals aged 55+ years.

- Of these, 76.7% were frail and 23.3% were pre-frail, equivalent to 14,070 and 4,274 respectively.
- Of these, 16.7% were aged 65-74 years and 80.0% were aged 75 and over, equivalent to 3,068 and 14,675 individuals respectively.

#### Public Meals-on-Wheels

0.7% Reported Public Meals-on-Wheels., equivalent to 8,026 individuals aged 55+ years

- Of these, 66.7% were frail and 33.3% were pre-frail, equivalent to 5,353 and 2,673 respectively.
- Of these, 17.9% were aged 65-74 years and 78.6% were aged 75 and over, equivalent to 1,437 and 6,308 individuals respectively.

#### Public Home Care Package

0.6% Reported Public Home Care Package, equivalent to 6,879 individuals aged 55+ years.

- Of these, 96.4% each were frail and 3.6% were pre-frail, equivalent to 6,631 and 248 individuals respectively.
- Of these, 20.7% were aged 65-74 years and 75.9% were aged 75 and over, equivalent to 1,424 and 5,221 individuals respectively.

## Introduction

The following will give an overview of the numbers of people over 50 in Ireland with the following 16 cardiovascular or chronic conditions captured by TILDA:

- High Cholesterol
- Hypertension
- Arthritis (including osteoarthritis, or rheumatism)
- Osteoporosis, sometimes called thin or brittle bones
- Asthma
- Diabetes
- Cancer or a malignant tumour
- Thyroid Problems
- Chronic lung disease such as chronic bronchitis or emphysema
- Angina
- A heart attack (inc. myocardial infarction or coronary thrombosis)
- Varicose Ulcers (an ulcer due to varicose veins)
- Ministroke/TIA
- Stroke
- Congestive heart failure
- Cirrhosis, or serious liver damage

The number of people living with multiple co-occurring medical conditions as well as the pairwise combinations of coexisting conditions (comorbidities) will also be reported. The final section of this report will give an overview of the medications being used at wave 5.

All estimates are based on data from the most recent wave 5 of TILDA (collected in 2018, n=5,206 respondents) and population estimates are based on figures collected from the most recent 2016 census data (which reported a total of 1,446,460 people over 50 living in Ireland. It should be noted that the TILDA sampling frame does not include people with dementia at baseline or people living in nursing homes and so this data may slightly underestimate prevalence for the total population in Ireland.

For estimates of diseases and comorbidity prevalence all numbers are calculated based on respondents having a history of the disease not just disease incidence at wave 5 i.e. we counted disease as being present if the respondent reported ever having any of the above medical conditions in any of the TILDA waves (2009-2018) not only if they reported it in 2018. To do this we included data from all 5 waves of TILDA and counted disease as being present if a respondent reported having the disease in any of the 5 waves and didn't later dispute having the disease at a later wave. The reason for this is that many respondents confuse being cured of a disease and having a disease under control (even though they are asked if they have ever been diagnosed with the conditions above many will report no as their condition is under control even though they previously reported having the condition). If they report a condition at a given wave they are asked to confirm it at the next wave and are given the opportunity to dispute the diagnosis. In all cases our estimates have corrected for disputed/false diagnoses.

In all cases population numbers have been rounded to the nearest 100.

## Weights

As stated weights were used in all cases to make estimates relevant to the general population of over 50s in Ireland. In this instance longitudinal weights which account for participant attrition between wave 1 and wave 5 were used. To calculate these weights the underlying probability of being included in the computer assisted personal interview (CAPI) was multiplied by the reciprocal of the probability of participating in all 5 TILDA waves. This probability was calculated using a logistic regression with the following predictors: age, sex, education level, age, marital status, geographic location, smoking status, health insurance, medications, socio-economic stratum, self-rated health, disabilities, depression, employment status, cardiovascular conditions, diabetes, vision, cognitive status and whether has wrist or hip fractures.

## Population estimates of cardiovascular and chronic diseases

Figure 1 shows the percentage in the population with each of the 16 conditions mentioned above.

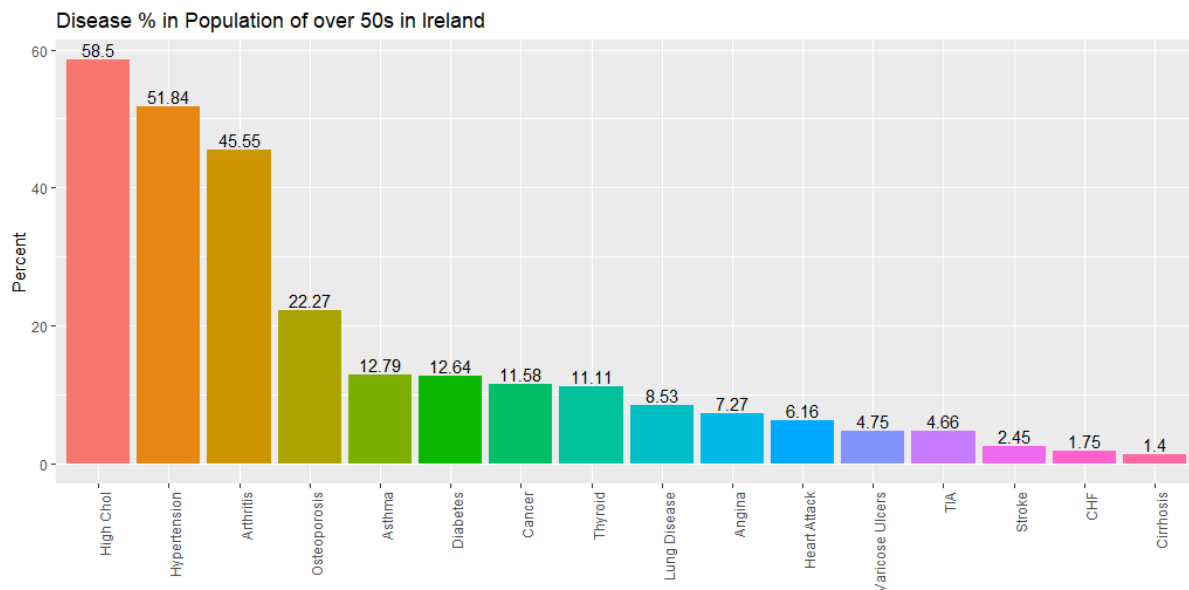


Figure 1: Disease prevalence in population of over 50s Ireland

Table 1 shows the actual numbers of cases in TILDA and the estimated number of people in the population with each of these diseases.

NOTE: In all of the following the population prevalence is weighted to the population of over 50s in Ireland and so will not correspond to the % of cases in TILDA i.e. for high cholesterol  $3037/5026 \times 100$  does not equal 58.5% this is because we have used weights to make our estimates relevant to the Irish population of over 50s and not just to TILDA.

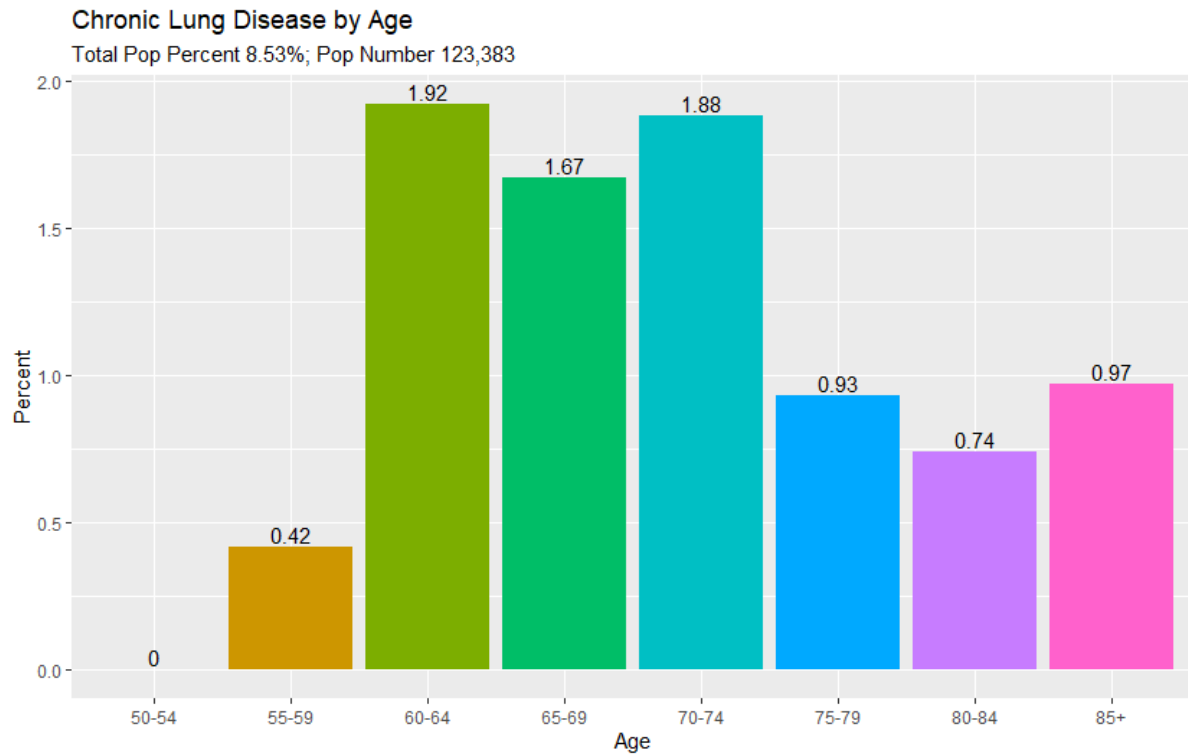
Table 1: Disease prevalence in TILDA and Population of over 50s Ireland

<b>Medical Condition</b>	<b>Number of cases in TILDA (n=5,206)</b>	<b>Estimated Population Prevalence %</b>	<b>Estimated Number in Population (n=1,446,460)</b>
Asthma	657	12.79	185002
Chronic lung disease such as chronic bronchitis or emphysema	402	8.53	123383
High Cholesterol	3037	58.5	846179
Hypertension	2589	51.84	749845
Arthritis (including osteoarthritis, or rheumatism)	2256	45.55	658863
Osteoporosis, sometimes called thin or brittle bones	1148	22.27	322127
Diabetes	612	12.64	182833
Cancer or a malignant tumour	612	11.58	167500
Thyroid Problems	592	11.11	160702
Angina	337	7.27	105158
A heart attack (inc. myocardial infarction or coronary thrombosis)	295	6.16	89102
Varicose Ulcers (an ulcer due to varicose veins)	226	4.75	68707
Ministroke/TIA	242	4.66	67405
A stroke (cerebral vascular disease)	143	2.45	35438
Congestive heart failure	83	1.75	25313
Cirrhosis, or serious liver damage	59	1.4	20250



## Disease and age breakdown

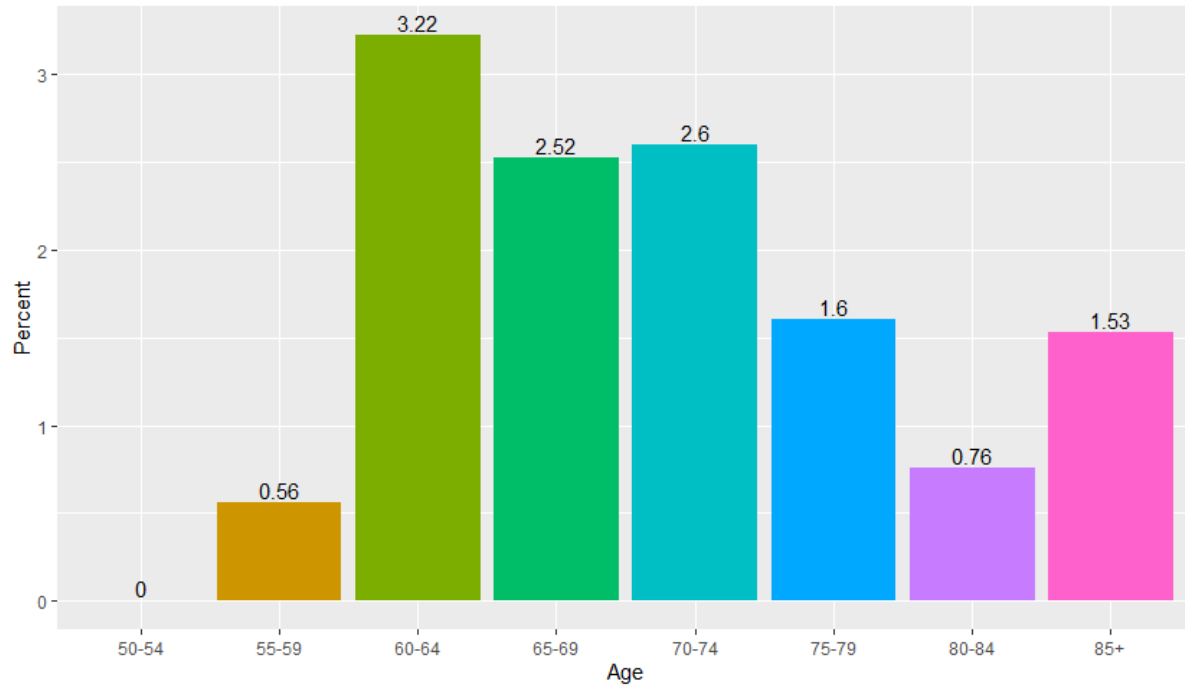
The following shows the age distribution for each disease followed by the table of actual numbers in the population.



<b>Chronic lung disease such as chronic bronchitis or emphysema by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	4	24	77	78	85	52	40	42	402
Estimated Prevalence in Population	0.00%	0.42%	1.92%	1.67%	1.88%	0.93%	0.74%	0.97%	8.53%
Estimated Number of Cases in Population	0	6075	27772	24156	27193	13452	10704	14031	123383

### Asthma by Age

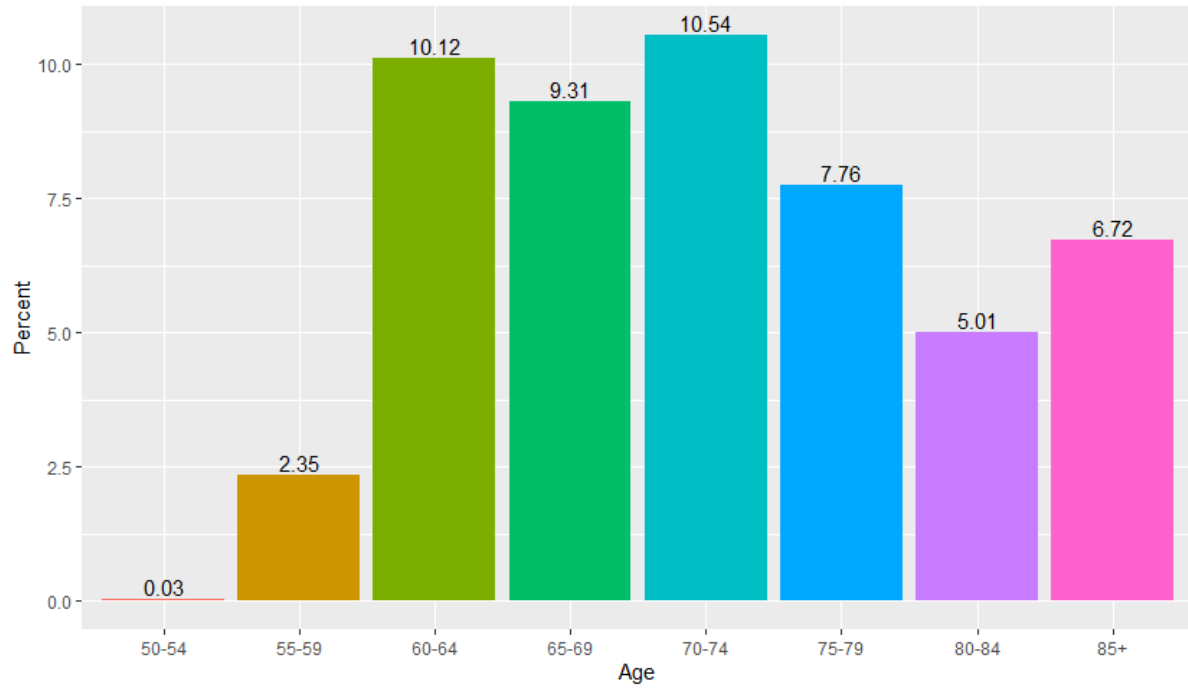
Total Pop Percent 12.79%; Pop Number 185,002



<b>Asthma by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	4	52	152	132	130	86	46	55	657
Estimated Prevalence in Population	0.00%	0.56%	3.22%	2.52%	2.60%	1.60%	0.76%	1.53%	12.79%
Estimated Number of Cases in Population	0	8100	46576	36451	37608	23143	10993	22131	185002

### Hypertension by Age

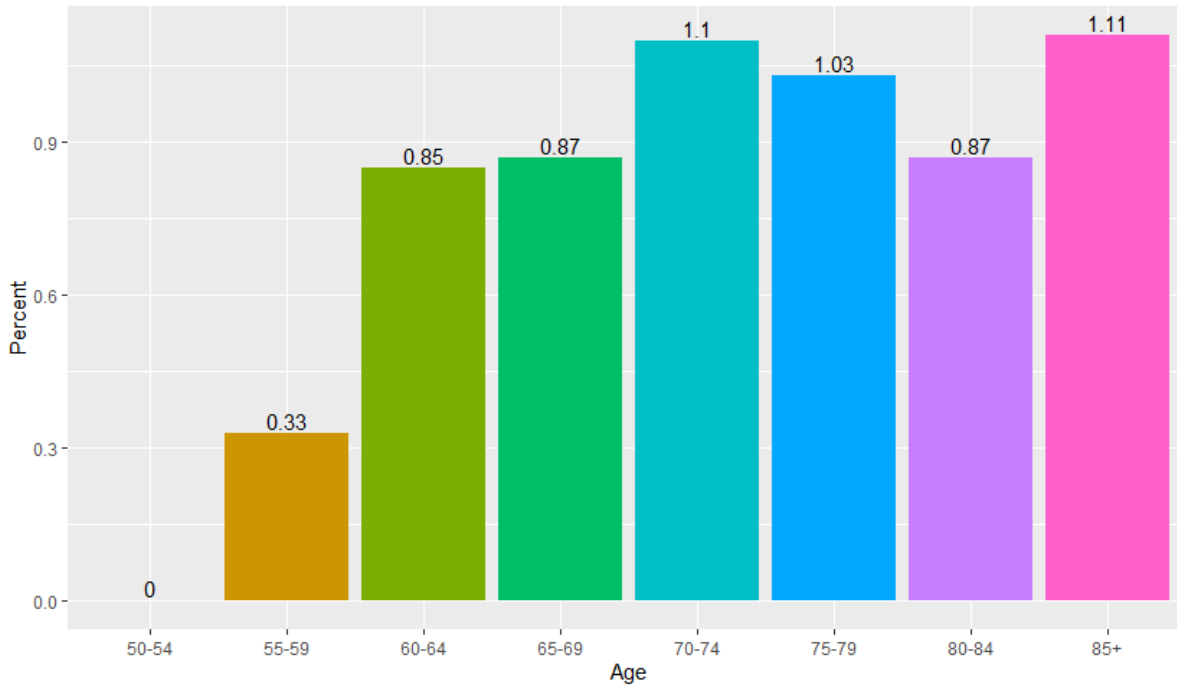
Total Pop Percent 51.84%; Pop Number 749,845



Hypertension by Age	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	20	156	459	463	520	428	282	2611	2589
Estimated Prevalence in Population	0.03%	2.35%	10.12%	9.31%	10.54%	7.76%	5.01%	6.72%	51.84
Estimated Number of Cases in Population	434	33992	146382	134665	152457	112245	72468	97202	749845

### Heart Attack by Age

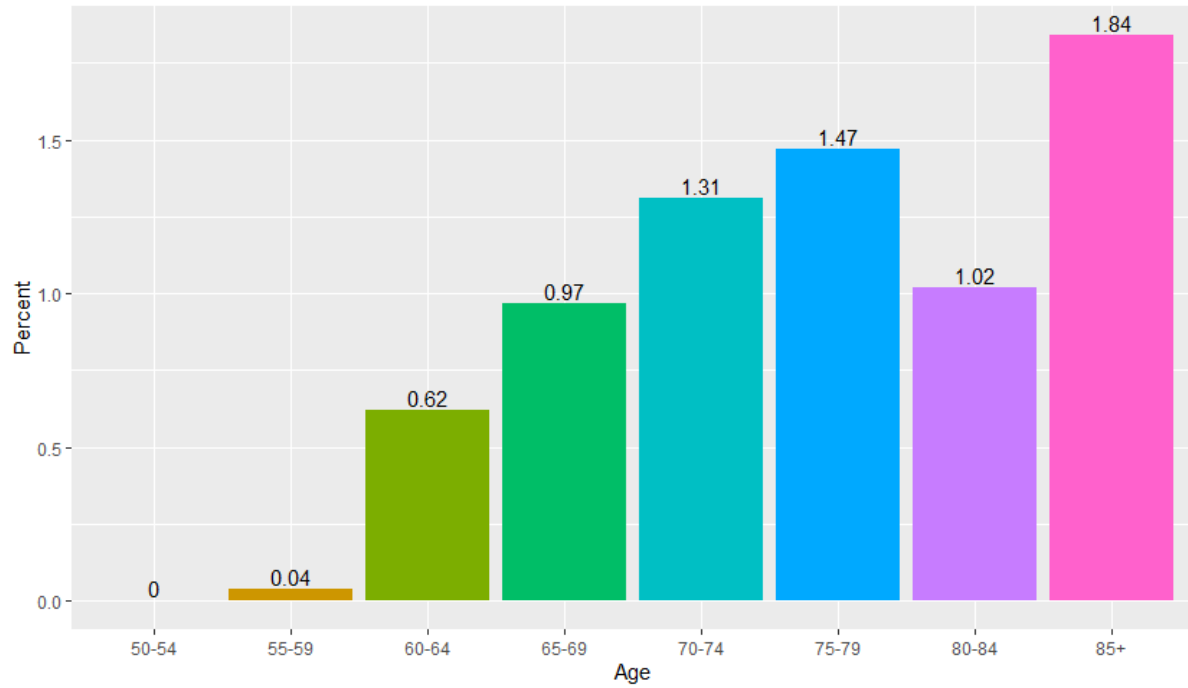
Total Pop Percent 6.16%; Pop Number 89,102



Heart Attack by Age	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	0	13	35	41	56	55	56	39	295
Estimated Prevalence in Population	0.00%	0.33%	0.85%	0.87%	1.10%	1.03%	0.87%	1.11%	6.16%
Estimated Number of Cases in Population	0	4773	12295	12584	15911	14899	12584	16056	89102

### Angina by Age

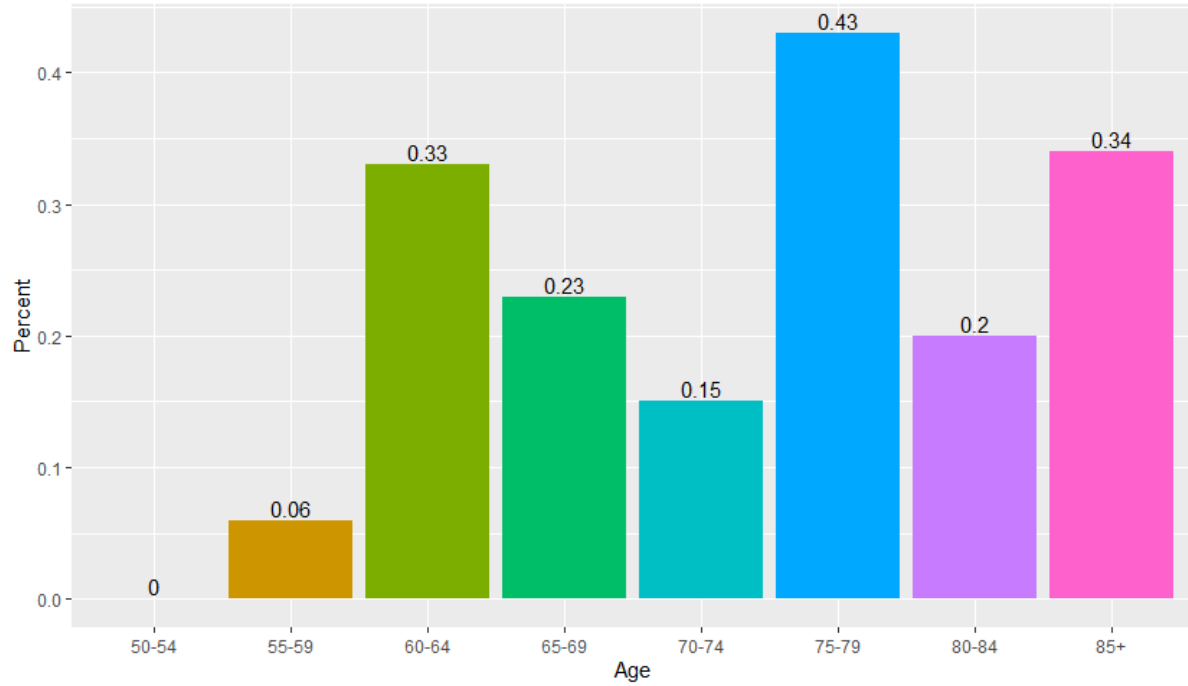
Total Pop Percent 7.27%; Pop Number 105,158



<b>Angina by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	1	4	24	45	64	74	62	63	337
Estimated Prevalence in Population	0.00%	0.04%	0.62%	0.97%	1.31%	1.47%	1.02%	1.84%	7.27%
Estimated Number of Cases in Population	0	579	8968	14031	18949	21263	14754	26615	105158

### Congestive Heart Failure by Age

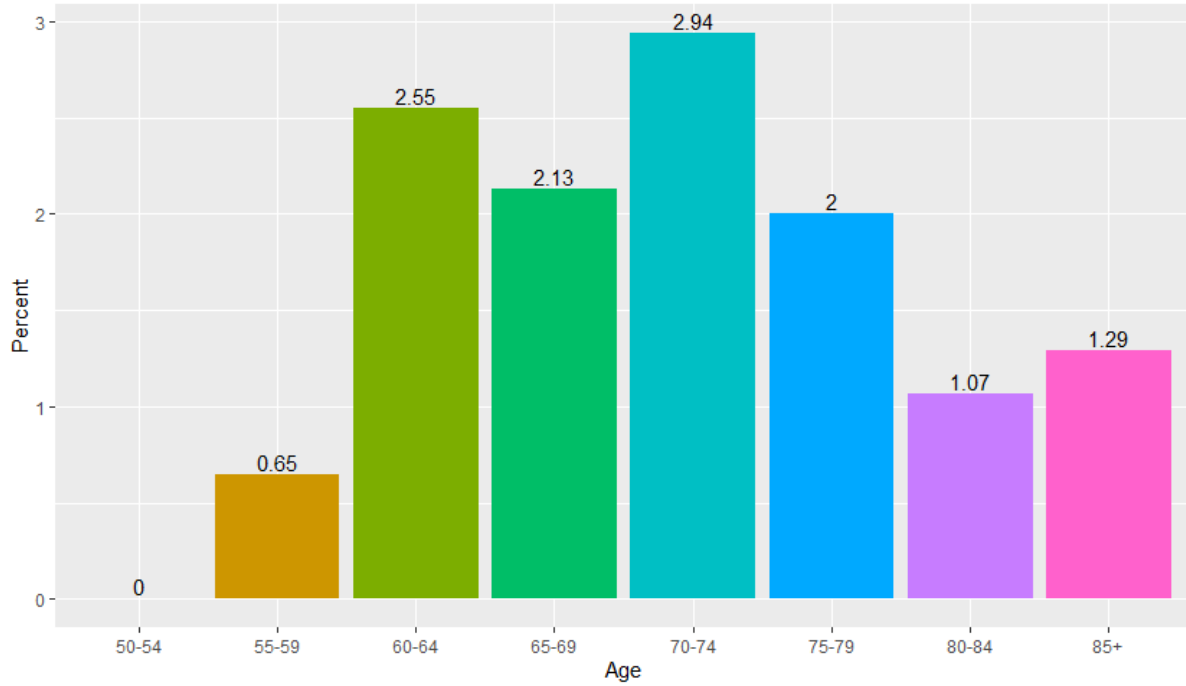
Total Pop Percent 1.75%; Pop Number 25,313



<b>Con. Heart Failure by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	0	3	10	12	13	20	11	14	83
Estimated Prevalence in Population	0.00%	0.06%	0.33%	0.23%	0.15%	0.43%	0.20%	0.34%	1.75%
Estimated Number of Cases in Population	0	853	4773	3327	2170	6220	2893	4918	25313

### Diabetes by Age

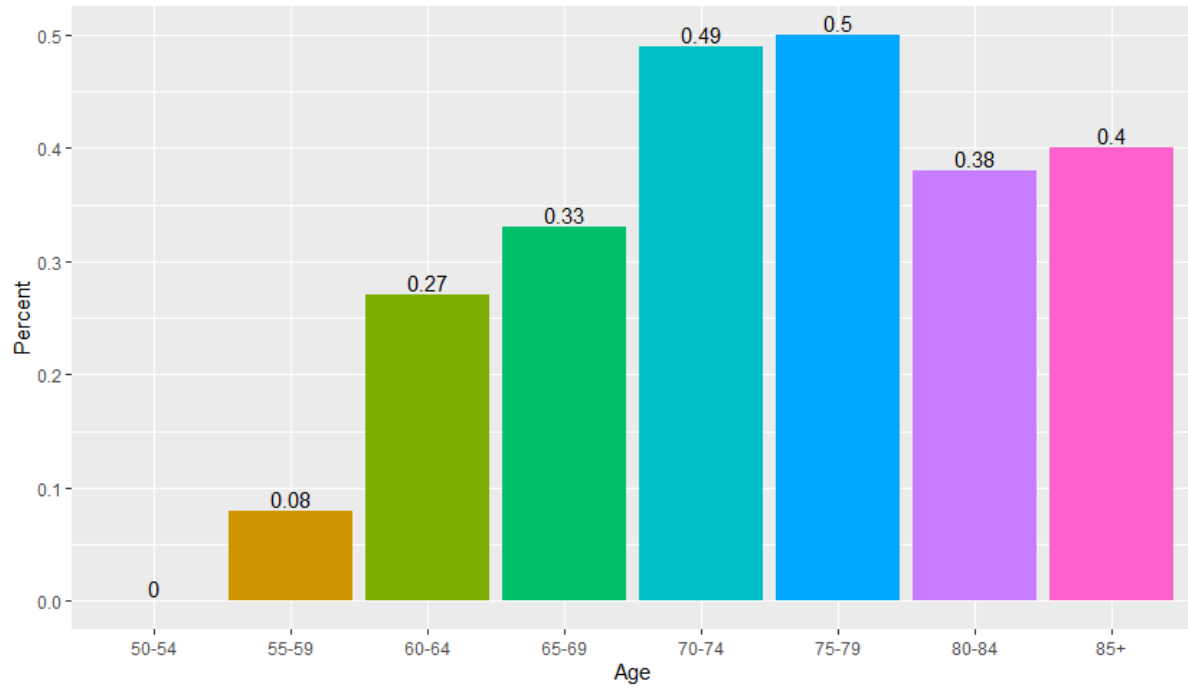
Total Pop Percent 12.64%; Pop Number 182,833



Diabetes by Age	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	4	32	108	102	134	117	64	51	612
Estimated Prevalence in Population	0.00%	0.65%	2.55%	2.13%	2.94%	2.00%	1.07%	1.29%	12.64%
Estimated Number of Cases in Population	0	9402	36885	30810	42526	28929	15477	18659	182833

### Stroke by Age

Total Pop Percent 2.45%; Pop Number 35,438

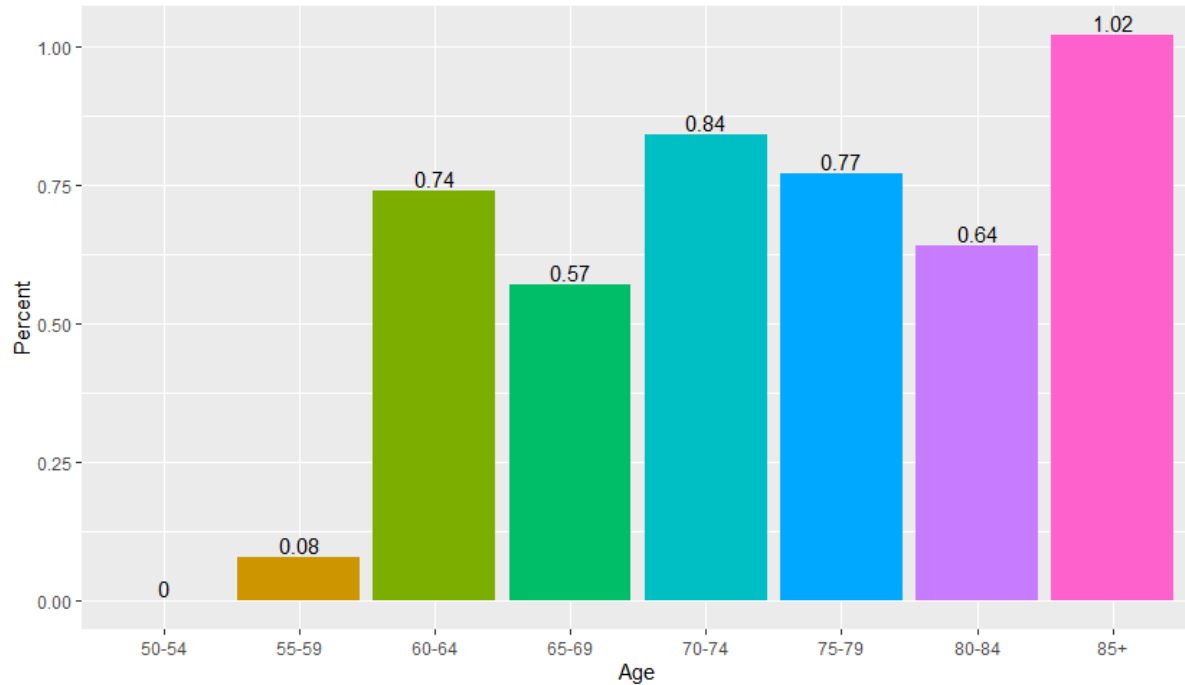


<b>Stroke (cerebral vascular disease) by age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	0	5	12	18	27	33	26	22	143
Estimated Prevalence in Population	0.00%	0.08%	0.27%	0.33%	0.49%	0.50%	0.38%	0.40%	2.45%
Estimated Number of Cases in Population	0	1157	3905	4773	7088	7232	5497	5786	35438



### Ministroke/TIA by Age

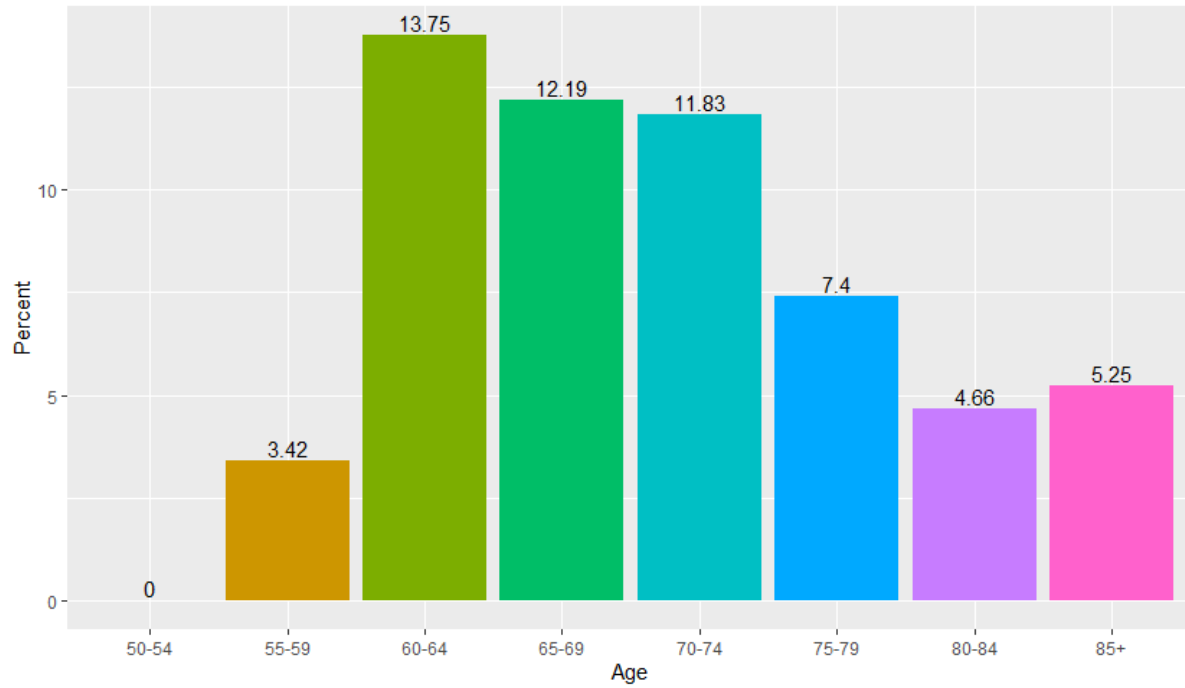
Total Pop Percent 4.66%; Pop Number 67,405



<b>Ministroke TIA by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	0	7	29	29	42	49	39	47	242
Estimated Prevalence in Population	0.00%	0.08%	0.74%	0.57%	0.84%	0.77%	0.64%	1.02%	4.66%
Estimated Number of Cases in Population	0	1157	10704	8245	12150	11138	9257	14754	67405

### High Cholesterol by Age

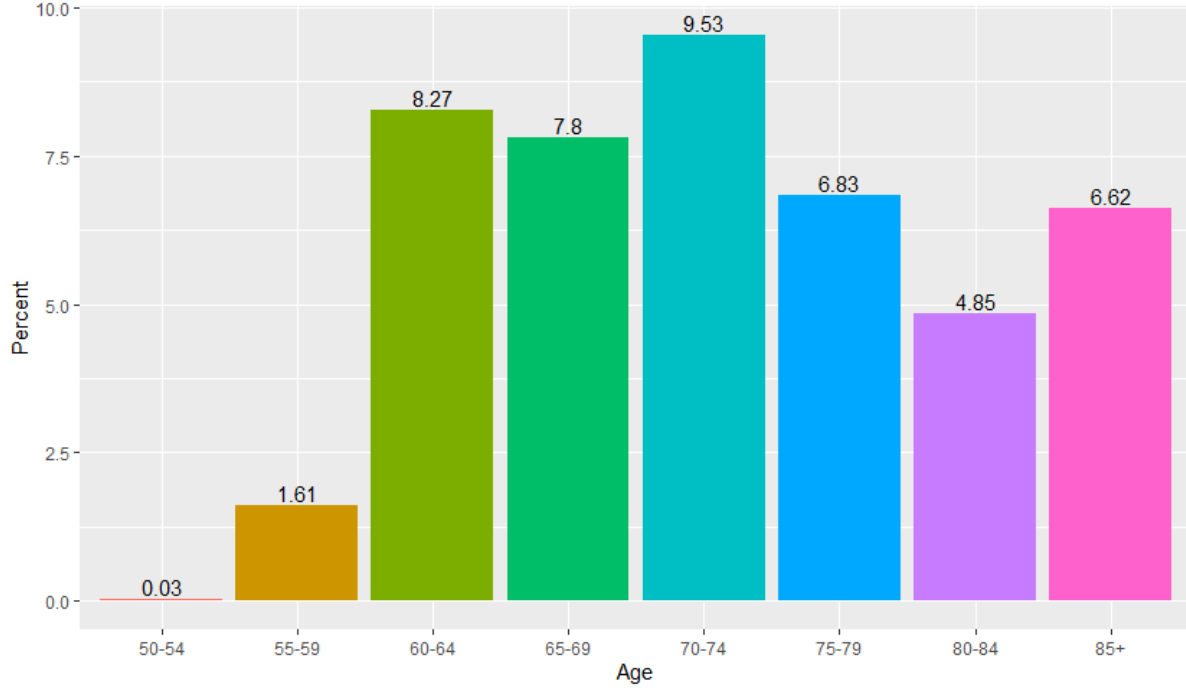
Total Pop Percent 58.5%; Pop Number 846,179



High Cholesterol by Age	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	29	241	642	619	607	419	273	207	3037
Estimated Prevalence in Population	0.00%	3.42%	13.75%	12.19%	11.83%	7.40%	4.66%	5.25%	58.50%
Estimated Number of Cases in Population	0	49469	198888	176323	171116	107038	67405	75939	846179

### Arthritis by Age

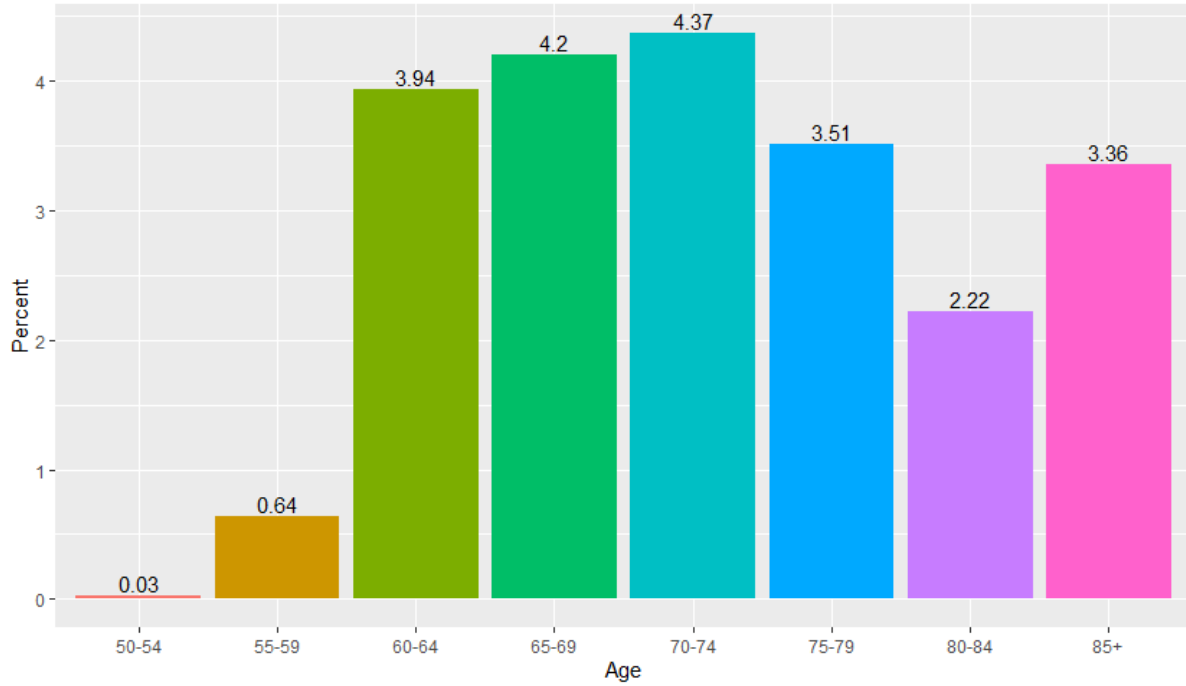
Total Pop Percent 45.55%; Pop Number 658,863



<b>Arthritis (including osteoarthritis, or rheumatism) by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	19	108	381	397	478	363	272	238	2256
Estimated Prevalence in Population	0.03%	1.61%	8.27%	7.80%	9.53%	6.83%	4.85%	6.62%	45.55%
Estimated Number of Cases in Population	434	23288	119622	112824	137848	98793	70153	95756	658863

### Osteoporosis by Age

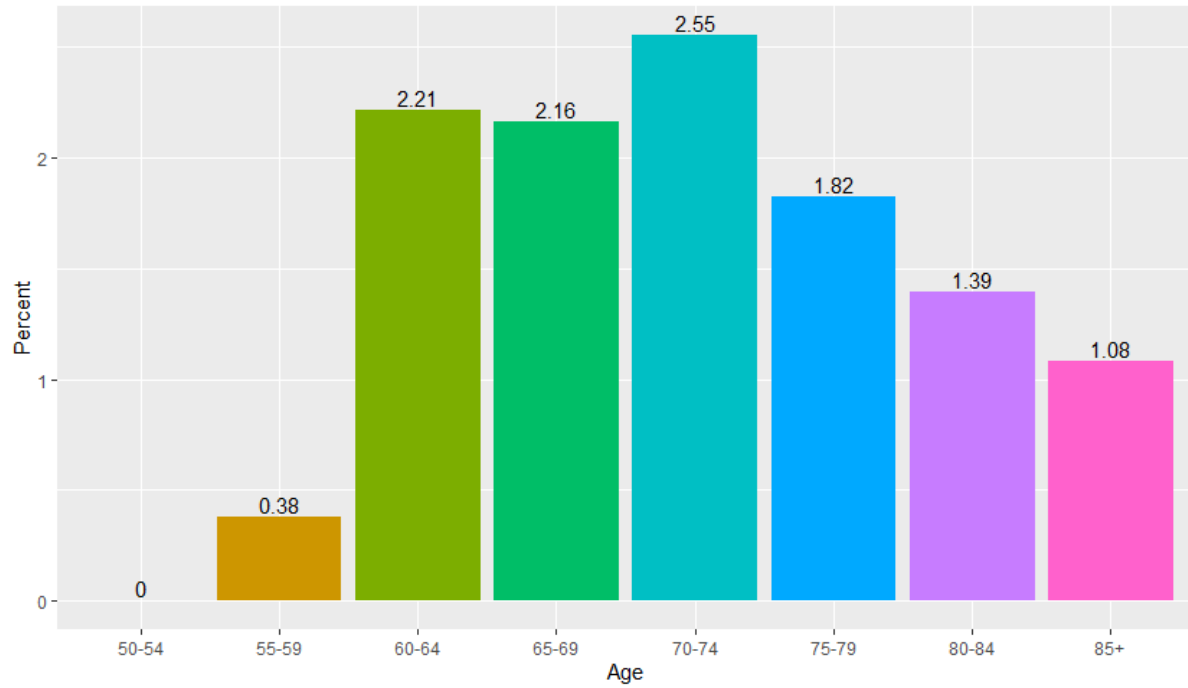
Total Pop Percent 22.27%; Pop Number 322,127



<b>Osteoporosis by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	3	58	193	222	237	196	118	121	1148
Estimated Prevalence in Population	0.03%	0.64%	3.94%	4.20%	4.37%	3.51%	2.22%	3.36%	22.27%
Estimated Number of Cases in Population	434	9257	56991	60751	63210	50771	32111	48601	322127

### Cancer or Malignant Tumour by Age

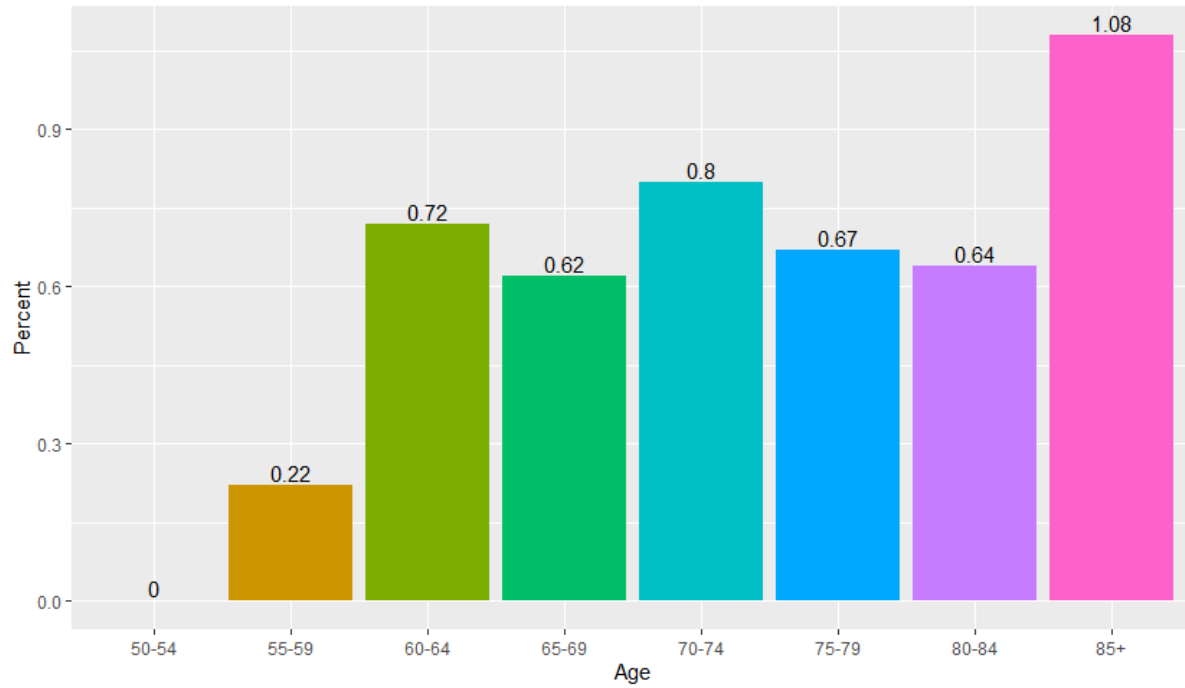
Total Pop Percent 11.58%; Pop Number 167,500



Cancer or a malignant tumour	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	2	33	105	109	134	107	81	41	612
Estimated Prevalence in Population	0.0%	0.38%	2.21%	2.16%	2.55%	1.82%	1.39%	1.08%	11.58%
Estimated Number of Cases in Population	0	5497	31967	31244	36885	26326	20106	15622	167500

### Varicose Ulcers by Age

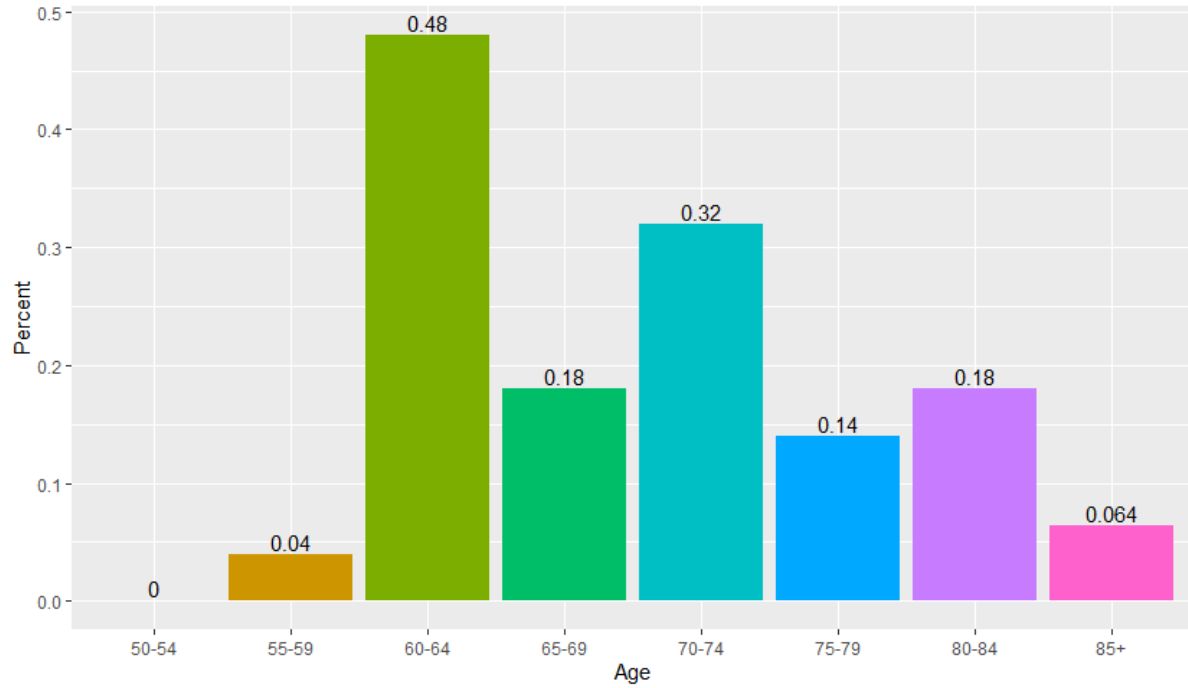
Total Pop Percent 4.75%; Pop Number 68,707



Varicose Ulcers by Age	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	1	12	30	33	36	40	37	37	226
Estimated Prevalence in Population	0.00%	0.22%	0.72%	0.62%	0.80%	0.67%	0.64%	1.08%	4.75%
Estimated Number of Cases in Population	0	3182	10415	8968	11572	9691	9257	15622	68707

### Cirrhosis, or serious liver damage by Age

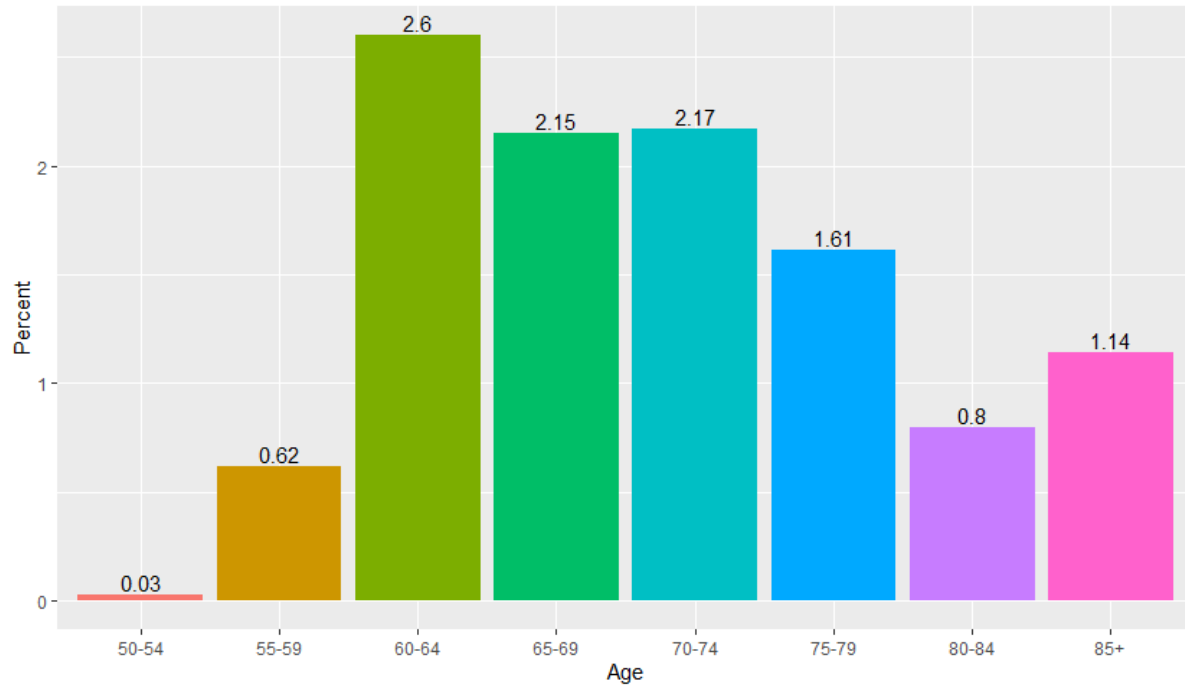
Total Pop Percent 1.4%; Pop Number 20,250



<b>Cirrhosis, or serious liver damage by Age</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	0	4	15	10	13	8	8	1	59
Estimated Prevalence in Population	0.00%	0.04%	0.48%	0.18%	0.32%	0.14%	0.18%	0.064%	1.40%
Estimated Number of Cases in Population	0	579	6943	2604	4629	2025	2604	868	20250

### Thyroid Problems by Age

Total Pop Percent 11.11%; Pop Number 160,702

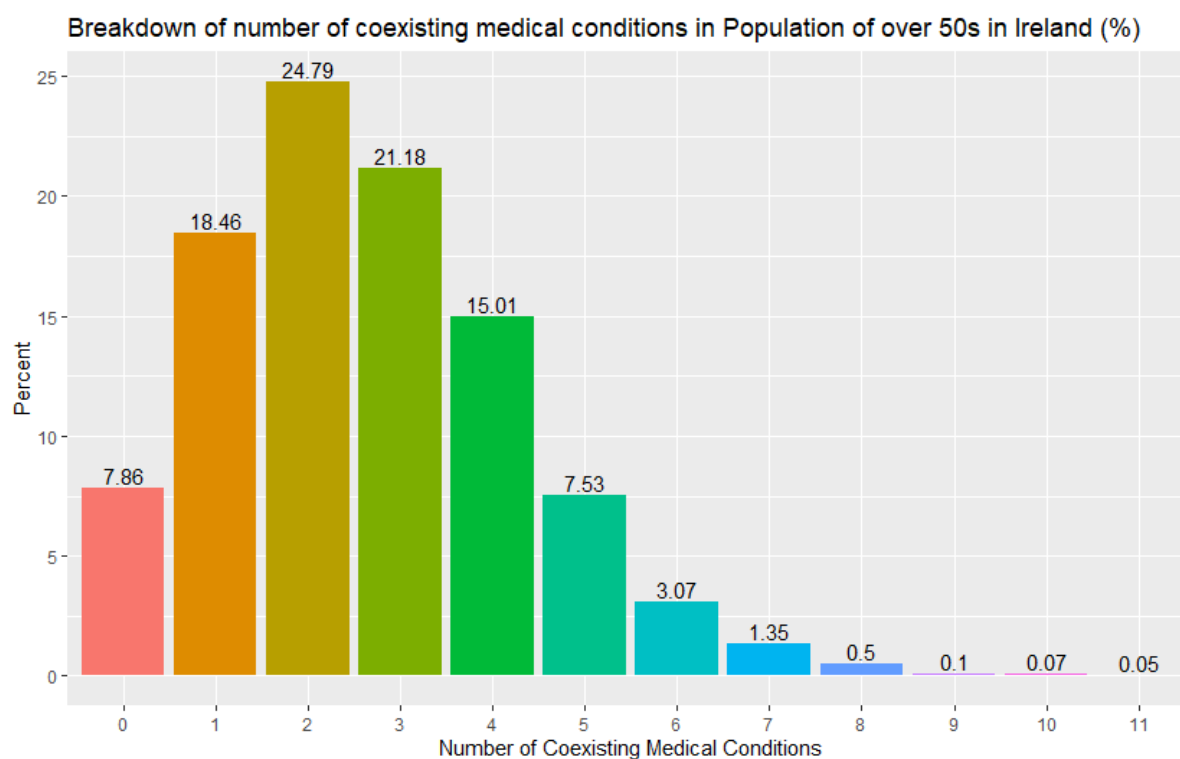


Thyroid Problems by Age	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	6	52	135	111	112	86	47	43	592
Estimated Prevalence in Population	0.03%	0.62%	2.60%	2.15%	2.17%	1.61%	0.80%	1.14%	11.11%
Estimated Number of Cases in Population	434	8968	37608	31099	31388	23288	11572	16490	160702



## Comorbidities

The following shows the % in the population (to the nearest 100) with co-occurring medical conditions. For example, we can see that 7.86% of the population (113,692 people from table) are estimated to have none of the 16 reported medical conditions, whereas 18.46% (267,017 people) have only one condition. 24.79% (358,577 people) have exactly two of the 16 listed medical conditions etc



Number of Co-occurring Conditions	Number in TILDA	Population Prevalence	Estimated Number in Population
0	475	7.86%	113692
1	1009	18.46%	267017
2	1290	24.79%	358577
3	1061	21.18%	306360
4	742	15.01%	217114
5	378	7.53%	108918
6	151	3.07%	44406
7	62	1.35%	19527
8	29	0.50%	7232
9	4	0.10%	1403
10	3	0.07%	984
11	2	0.05%	680

The following table shows the most common combinations of co-morbidities in the population (to nearest 100). As there are so many different combinations this table has been limited to the 39 comorbidities occurring in more than 2% of the population. So 33.1% of over 50s in Ireland or 478,778 people are estimated to have both hypertension and high cholesterol etc.

As we are only looking at occurrence of two conditions here there may be double counting across comorbidities i.e. some of the 28.2% who have hypertension and arthritis may also be part of the 33.1% who have hypertension and high cholesterol i.e. there may be another set of people within these figures who have hypertension, high cholesterol and arthritis together.

If more detailed information is needed for combinations of 3,4,5+ co-occurring diseases just contact me.

<b>Condition1</b>	<b>Condition 2</b>	<b>Number in TILDA</b>	<b>Population Prevalence</b>	<b>Estimated Number in Population</b>
Chronic lung disease	Asthma	154	3.0%	43683
Asthma	Arthritis	358	7.5%	108774
Asthma	High Cholesterol	390	7.4%	106749
Asthma	Hypertension	355	7.0%	100529
Chronic lung disease	High Cholesterol	249	5.3%	76662
Chronic lung disease	Arthritis	237	5.0%	71744
Asthma	Osteoporosis	194	4.0%	57858
Chronic lung disease	Hypertension	239	4.9%	71455
Angina	High Cholesterol	254	5.4%	77530
High Cholesterol	Arthritis	1429	28.2%	408480
Hypertension	Arthritis	1263	26.1%	377960
High Cholesterol	Osteoporosis	731	14.1%	203228
Arthritis	Osteoporosis	641	12.8%	185436
Hypertension	Osteoporosis	563	11.2%	162293
Hypertension	Diabetes	449	9.5%	136690
Diabetes	High Cholesterol	408	8.4%	121792
High Cholesterol	Thyroid Problems	408	7.4%	107617
High Cholesterol	Cancer	375	7.0%	100674
Hypertension	Cancer	335	6.6%	95900
Diabetes	Arthritis	313	6.6%	95756
Hypertension	Thyroid Problems	315	6.3%	91272

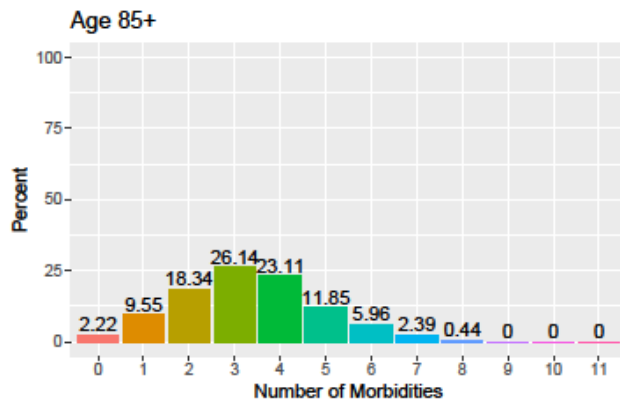
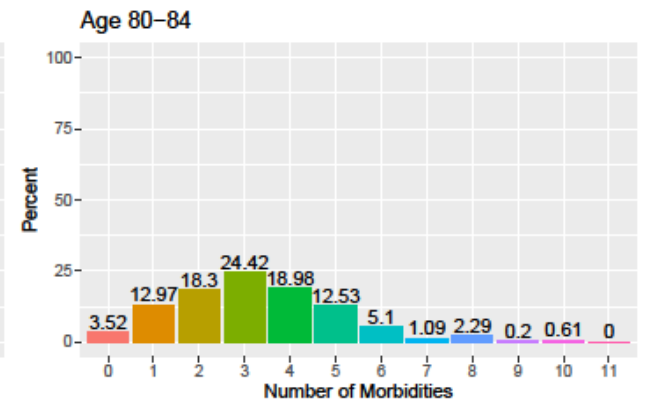
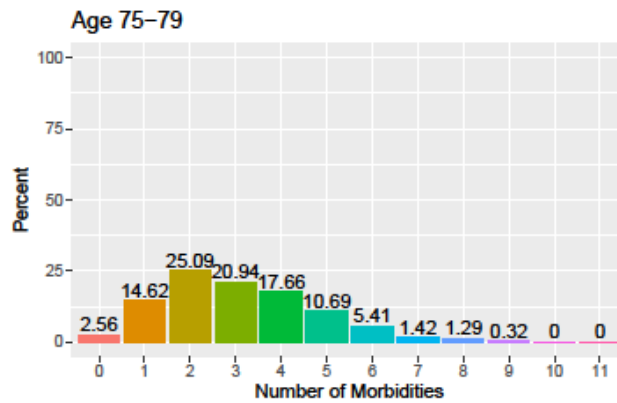
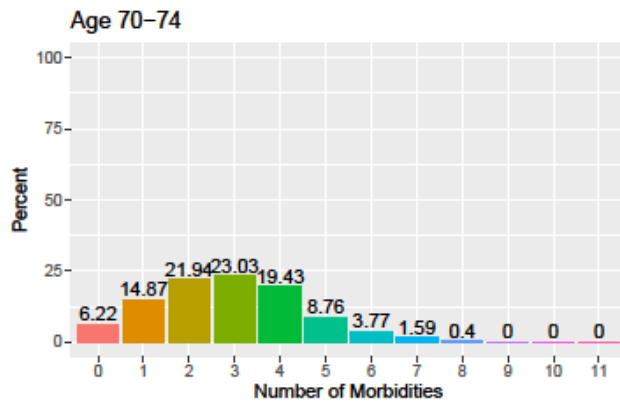
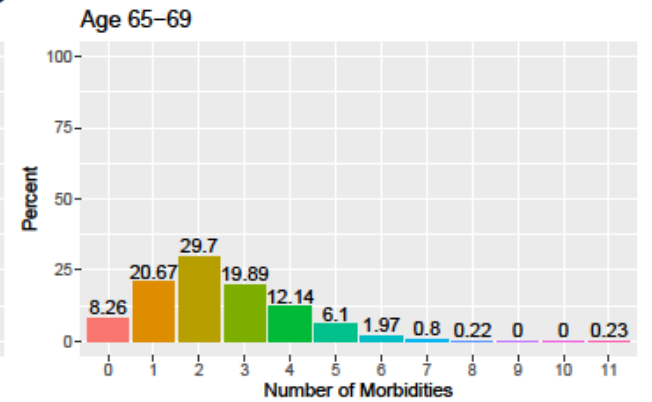
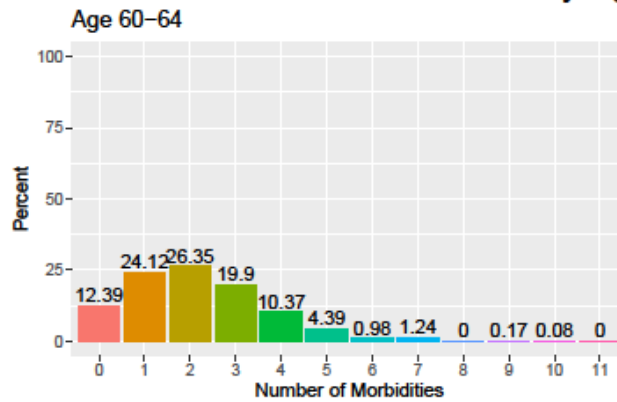
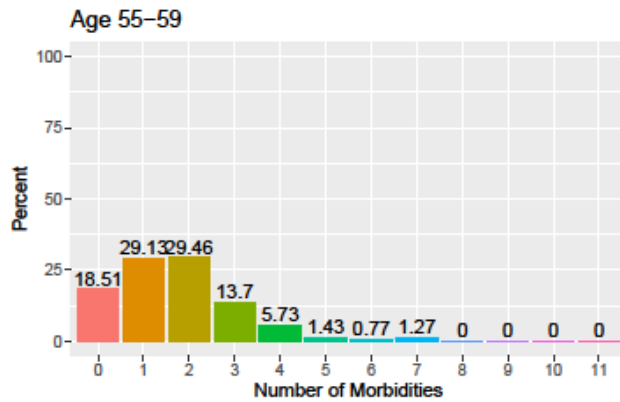
Arthritis	Thyroid Problems	309	6.0%	87077
Arthritis	Cancer	280	5.6%	81580
Hypertension	Angina	246	5.4%	78253
Angina	Arthritis	205	4.5%	65235
Heart Attack	High Cholesterol	216	4.5%	64657
Hypertension	Heart Attack	196	4.1%	59016
Heart Attack	Arthritis	157	3.4%	48601
Osteoporosis	Thyroid Problems	182	3.3%	48312
Arthritis	Varicose Ulcer	141	3.1%	45419
Hypertension	Ministroke/TIA	168	3.1%	44696
Osteoporosis	Cancer	150	3.0%	42815
Ministroke/TIA	High Cholesterol	150	2.9%	41513
Hypertension	Varicose Ulcer	133	2.8%	41079
Chronic lung disease	Osteoporosis	128	2.8%	40356
Ministroke/TIA	Arthritis	139	2.8%	39778
High Cholesterol	Varicose Ulcer	132	2.7%	38765
Angina	Heart Attack	111	2.3%	32690

The next figure shows the percentage of each age group by number of medical conditions.

**IMPORTANT:** The percentages shown here are calculated by age bracket. In all other cases percentages are the % of the total population over 50. Here we are showing the % of each age bracket with a given number of diseases. For example 18.51% of those aged 55-59 have none of the 16 medical conditions, 29.13% of those aged 55-59 have 1 medical condition etc.

**NOTE:** Weights were too small in 50-54 age group to allow for comorbidity analysis.

## Breakdown of Number of Diseases by Age



The following are the numbers of in the population for each age brackets which corresponds to the plot above:

<b>Number of Morbidities</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>Total</b>
0	17791	43394	23722	16779	4629	4050	3327	113692
1	28061	84618	59450	40067	26470	14609	14031	267450
2	28351	92429	85486	59160	45419	20684	27049	358577
3	13163	69719	57280	62198	37897	27627	38476	306360
4	5497	36306	35004	52506	31967	21408	33992	217114
5	1374	15332	17502	23577	19383	14175	17502	108918
6	738	3472	5641	10125	9836	5786	8823	44406
7	1215	4339	2314	4339	2604	1229	3472	19527
8	0	0	636	1085	2314	2604	651	7232
9	0	593	0	0	579	217	0	1403
10	0	289	0	0	0	694	0	984
11	0	0	680	0	0	0	0	680

## Medications Data

This section will show the breakdown of numbers of over 50s at wave 5 (2018) using the following medications (identified using WHO Anatomical Therapeutic Chemical (ATC) codes

[https://www.whocc.no/atc\\_ddd\\_index/](https://www.whocc.no/atc_ddd_index/)):

- Any blood glucose lowering drug<sup>1</sup>
- Thiazolidinediones
- Antihypertensives<sup>2</sup>
- ACE Inhibitors<sup>3</sup>
- Angiotensin II Antagonists<sup>3</sup>
- Oral Ibuprofen

These estimates are based on respondents reporting of medications that they take at the time of wave 5 data collection on a regular basis, live every day or every week. They are asked to report not just prescription medications, but also over-the-counter medications and supplements. The data may underestimate exposure to medications used intermittently, such as ibuprofen in this case, where respondent may only have reported this if they use it regularly.

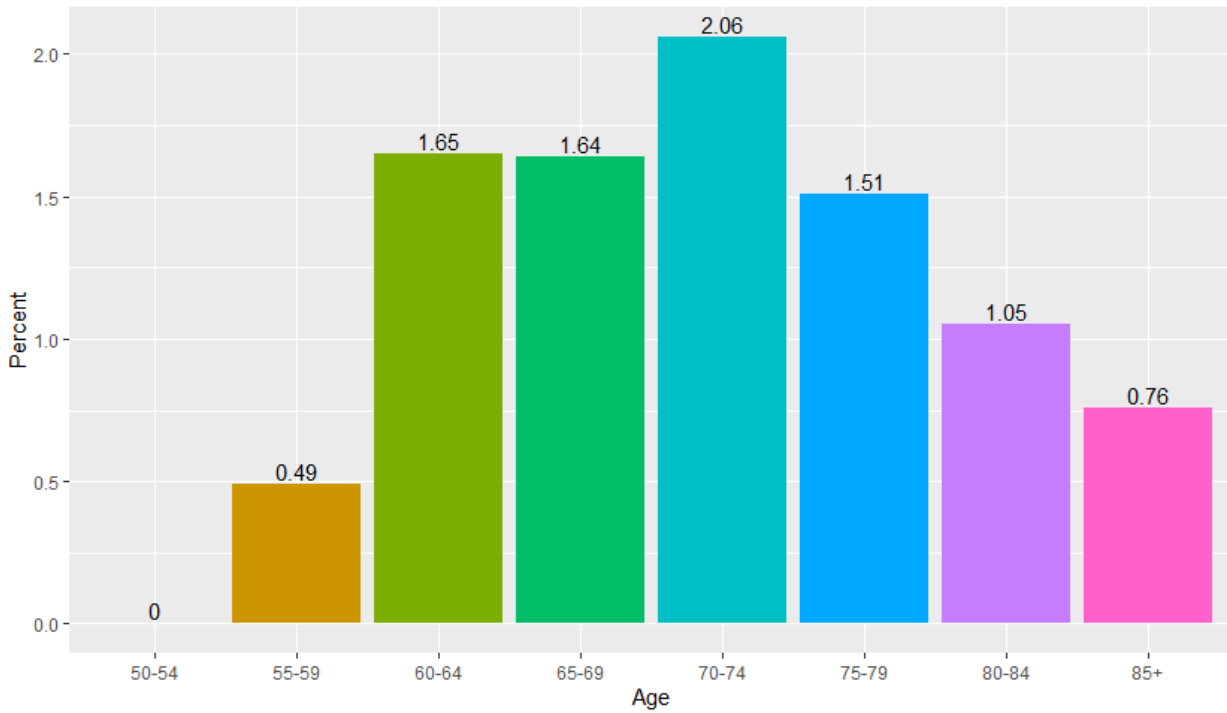
<sup>1</sup> This includes insulin and its analogues, and other oral and non-oral blood glucose lowering drugs. This corresponds to ATC code A10.

<sup>2</sup> This includes diuretics, beta blockers, calcium channel blockers, ACE inhibitors, Angiotensin II Antagonists, other Renin-Angiotensin System agents, and other antihypertensives. This corresponds to ATC codes C02, C03, C0, C08, and C09.

<sup>3</sup> This includes both single ingredient and fixed-dose combination medications.

### Blood Glucose Lowering Drug by Age

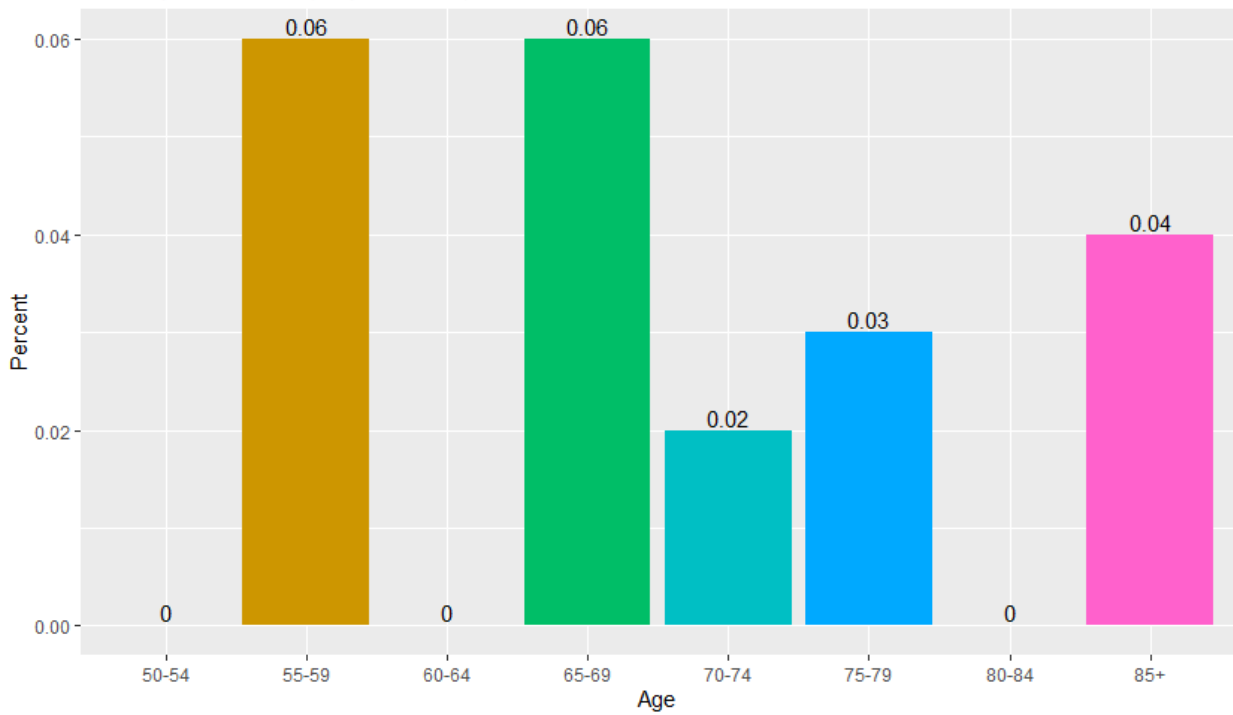
Total Pop Percent 9.16%; Pop Number 132,496



<b>Any Blood Glucose Lowering Drug</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	3	26	70	80	96	84	60	29	448
Estimated Prevalence in Population	0	0.49%	1.65%	1.64%	2.06%	1.51%	1.05%	0.76%	9.16%
Estimated Number of Cases in Population	0	7088	23867	23722	29797	21842	15188	10993	132496

### Any Thiazolidinedione by Age

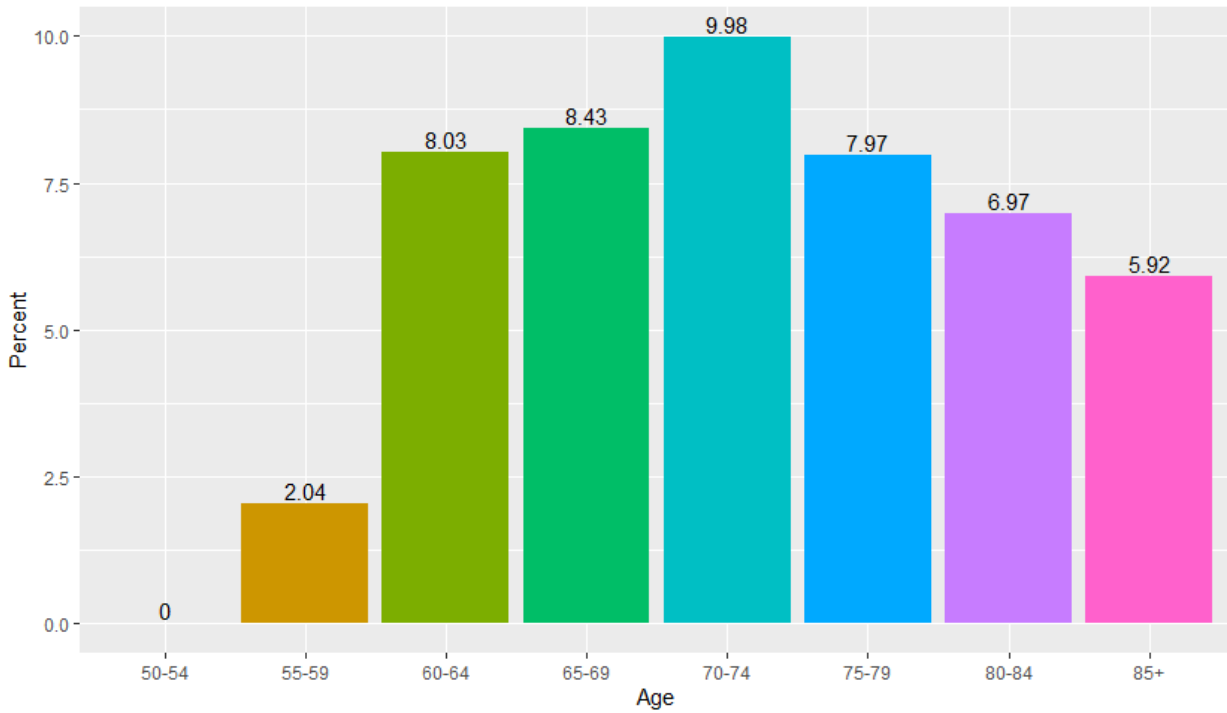
Total Pop Percent 0.2%; Pop Number 2,893



Any Thiazolidinedione	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTAL
Number Cases in TILDA	0	1	0	3	1	3	0	1	9
Estimated Prevalence in Population	0.00%	0.06%	0.00%	0.06%	0.02%	0.03%	0.00%	0.04%	0.20%
Estimated Number of Cases in Population	0	882	0	839	275	376	0	550	2893

### Any Antihypertensives by Age

Total Pop Percent 49.34%; Pop Number 713,683

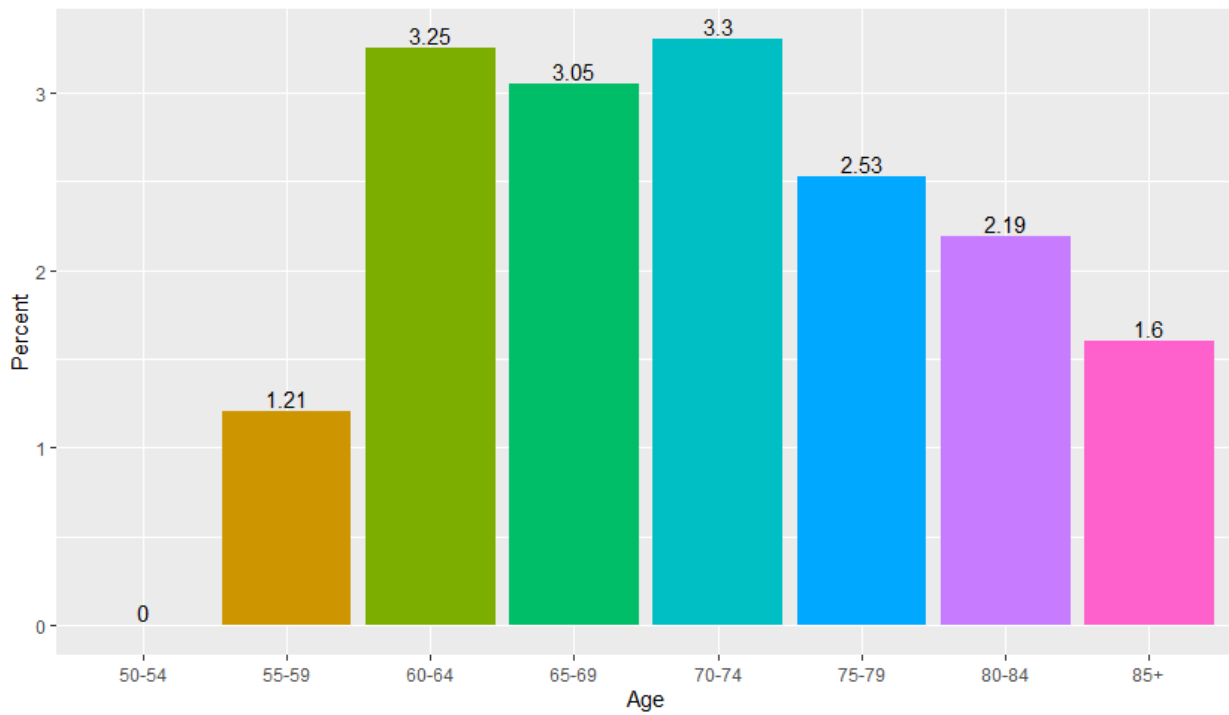


<b>Any Antihypertensives:</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	16	119	363	422	490	433	359	200	2402
Estimated Prevalence in Population	0.00%	2.04%	8.03%	8.43%	9.98%	7.97%	6.97%	5.92%	49.34%
Estimated Number of Cases in Population	0	29508	116151	121937	144357	115283	100818	85630	713683



### Any ACE Inhibitors by Age

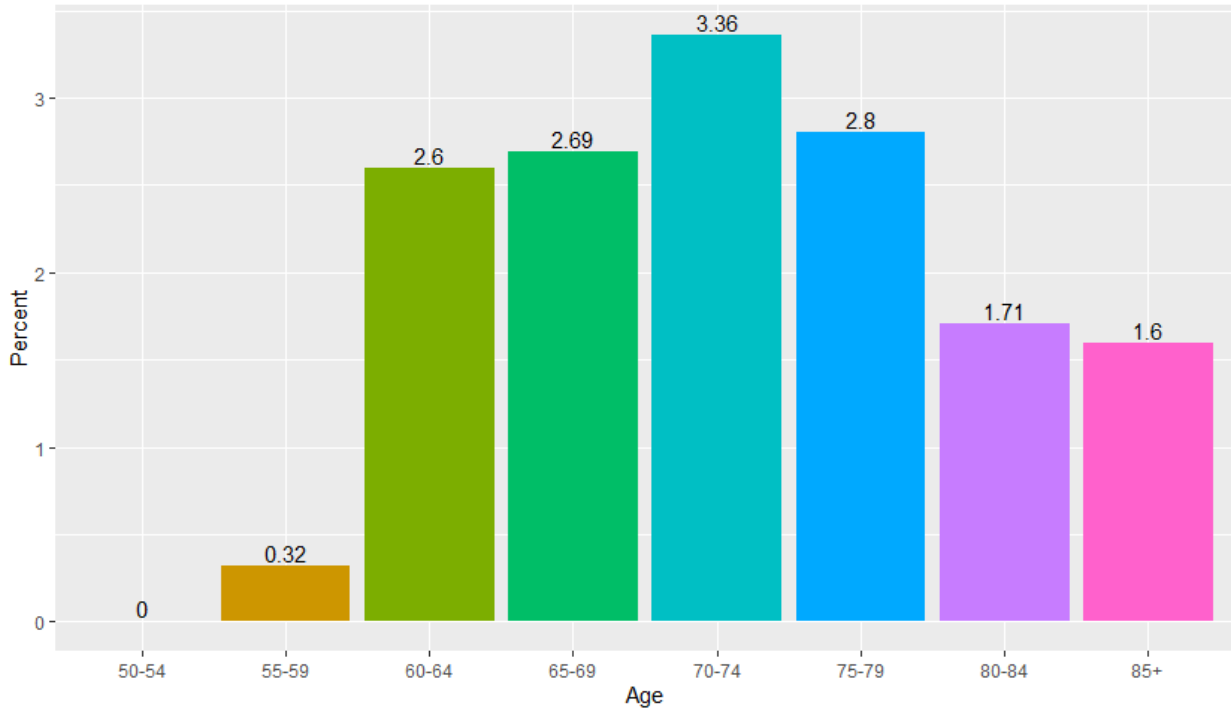
Total Pop Percent 17.14%; Pop Number 247,923



<b>Any ACE Inhibitors:</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	7	60	147	151	153	136	119	58	831
Estimated Prevalence in Population	0.00%	1.21%	3.25%	3.05%	3.30%	2.53%	2.19%	1.60%	17.14%
Estimated Number of Cases in Population	0	17502	47010	44117	47733	36595	31677	23143	247923

### Any Angiotensin II Antagonist by Age

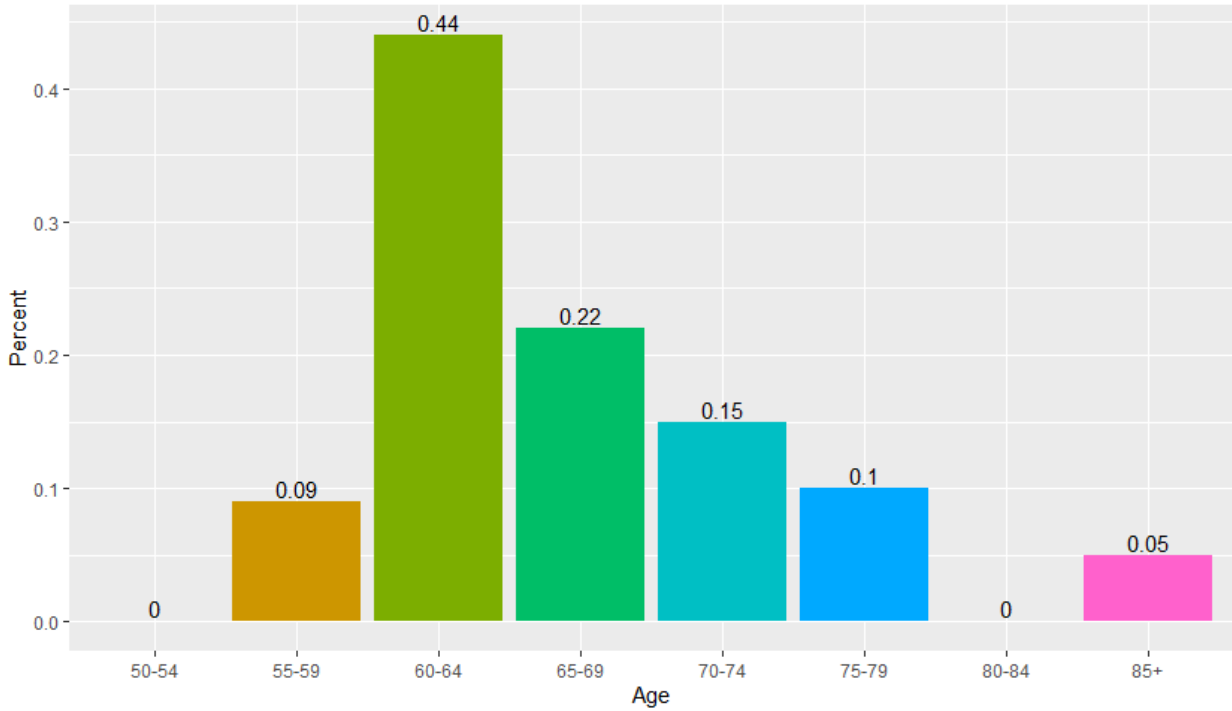
Total Pop Percent 15.08%; Pop Number 218,126



<b>Any Angiotensin II Antagonist:</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	5	23	121	130	170	150	90	55	744
Estimated Prevalence in Population	0.00%	0.32%	2.60%	2.69%	3.36%	2.80%	1.71%	1.60%	15.08%
Estimated Number of Cases in Population	0	4629	37608	38910	48601	40501	24734	23143	218126

### Any Oral Ibuprofen by Age

Total Pop Percent 1.05%; Pop Number 15,188



<b>Any Oral Ibuprofen:</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85+</b>	<b>TOTAL</b>
Number Cases in TILDA	2	6	13	11	6	6	0	4	48
Estimated Prevalence in Population	0.00%	0.09%	0.44%	0.22%	0.15%	0.10%	0.00%	0.05%	1.05%
Estimated Number of Cases in Population	0	1229	6364	3182	2170	1446	0	723	15188

## **Grandchild care, family caregivers and disability in the older population.**

Christine McGarrigle

The following section gives an overview of the numbers of people over 50 in Ireland who provide care for grandchildren, and numbers of hours provided by grandparents. We also examine household composition and determine numbers of older people who live alone, by their functional disability status and proximity to their children.

Functional disability is measured as self-reported limitations in the activities of daily living (ADLs; help with walking across a room, dressing, bathing, eating, getting in and out of bed, and using the toilet) and instrumental activities of daily living (IADLs; preparing meals, shopping for groceries, making telephone calls, taking medications and managing money).

Finally, we present who receives homehelp, both state provided and privately funded, and describe the family caregivers who help the older population with functional disability.

All estimates are based on data from the most recent wave 5 of TILDA (collected in 2018, n=5,206 respondents) and population estimates are based on figures collected from the most recent 2016 census data (which reported a total of 1,446,460 people over 50 living in Ireland. In all cases population numbers have been rounded to the nearest 100.

Overall 31.5% of the population aged over 50 provide childcare for their grandchildren and the mean number of hours in the last month was 2.5 hours (Interquartile range 1-4) although 8% provided more than 40 hours in the past month. This equates to **352,100** people with **93,000** providing more than 40 hours in the past month.

We find that **126,300** people aged over 50 live alone, **36,000** of whom are living with an ADL functional disability, and **57,800** are aged over 70 years. In total 16.1% equivalent to **234,200** have no children. For the majority of those who do have children their children live either in the same house (26.1%) or in the same county (44.5%).

Overall 9% receive help from a family caregiver, the equivalent of **75,800** people. The majority of these were aged over 70 (**54,500**).

*Table 1 Proportion of people aged 50 and over who take care of grandchildren for at least an hour in the past month by age group, The Irish Longitudinal Study on Ageing (TILDA)*

Age group	No children		Provide grandchild care		No grandchild care		no grandchildren	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
N	663		1,714		2,351		474	
50-54	0.2	[0.0,1.1]	0		0		0	
55-59	13.9	[10.0,19.0]	22	[17.0,27.9]	39.3	[33.3,45.7]	24.8	[19.6,30.9]
60-64	18.8	[16.0,21.8]	31.5	[28.2,35.0]	35.4	[32.0,38.9]	14.3	[12.0,17.0]
65-69	15	[12.5,17.9]	40.6	[36.9,44.5]	36	[32.3,39.8]	8.4	[6.5,10.8]
70-74	13.8	[11.1,17.0]	45.4	[41.5,49.2]	38.2	[34.5,42.0]	2.7	[1.8,4.1]
75-79	13.2	[10.4,16.7]	32.9	[28.6,37.5]	51	[46.5,55.4]	2.9	[1.7,4.9]
80-84	19.1	[14.7,24.4]	20.1	[15.9,25.0]	59.1	[53.2,64.7]	1.8	[0.8,4.0]
85+	17.4	[13.1,22.7]	5.5	[3.0,9.7]	75.1	[69.1,80.2]	2.1	[0.9,4.9]
Total	16	[14.7,17.4]	31.5	[29.6,33.4]	44.7	[42.7,46.7]	7.9	[6.9,9.0]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

*Table 2 Estimated numbers of people aged 50 and over who take care of grandchildren for at least an hour in the past month by age group. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population				Total
	no children	Provide grandchild care	No grandchild care	no grandchildren	
50-54	600	0	0	0	0
55-59	37,500	59,00	106,100	67,000	270,100
60-64	44,900	75,200	84,600	34,200	238,900
65-69	31,700	85,800	76,000	17,700	211,200
70-74	22,400	73,700	62,000	4,400	162,300
75-79	15,200	38,000	59,000	3,300	115,500
80-84	15,500	16,300	47,900	1,500	81,000
85+	11,800	3,700	50,700	1,400	67,600
Total	179,600	352,100	486,300	129,500	1,146,500

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100. Totals may vary due to rounding.

Table 3 Numbers of hours of grandchildren provided in the past month by age group, The Irish Longitudinal Study on Ageing (TILDA)

	No hours		1-9 hours		10-19 hours		20-40 hours		40-80 hours		80+ hours	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
50-54	100											
55-59	79	[73.1,83.8]	3.7	[2.1,6.6]	5	[2.7,8.9]	4.9	[2.9,8.1]	4	[2.1,7.8]	3.3	[1.5,7.2]
60-64	69	[65.5,72.3]	6.1	[4.6,7.9]	7.7	[6.0,9.8]	5.9	[4.5,7.7]	6.6	[5.0,8.7]	4.7	[3.3,6.7]
65-69	60.4	[56.6,64.1]	12.1	[10.0,14.7]	9.2	[7.2,11.6]	7.8	[6.1,9.9]	5.3	[3.9,7.2]	5.2	[3.8,7.0]
70-74	55.7	[51.8,59.5]	14.4	[11.8,17.4]	10	[8.1,12.2]	8.9	[6.9,11.4]	6.5	[4.9,8.5]	4.6	[3.1,6.8]
75-79	67.8	[63.3,72.0]	15.5	[12.4,19.3]	7.5	[5.5,10.2]	4.8	[3.3,6.9]	2.9	[1.5,5.5]	1.4	[0.7,2.9]
80-84	80.6	[75.7,84.7]	10.8	[7.6,15.2]	4	[2.3,6.7]	3.5	[2.1,6.0]	0.9	[0.3,2.7]	0.2	[0.0,1.5]
85+	95.2	[91.1,97.4]	3.1	[1.3,7.2]	0		1.1	[0.3,3.6]	0.3	[0.0,2.0]	0.3	[0.0,2.2]
Total	69.3	[67.4,71.2]	9.8	[8.7,11.1]	7	[6.1,8.0]	5.9	[5.1,6.8]	4.5	[3.8,5.3]	3.4	[2.8,4.2]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

*Table 4 Estimated numbers of people aged 50 and over who take care of grandchildren for at least an hour in the past month by hours of grandchild care and age group. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population						Total
	No hours	1-9 hours	10-19 hours	20-40 hours	40-80 hours	80+ hours	
50-54	299,900	0	0	0	0	0	299,900
55-59	213,400	10,000	13,500	13,200	10,800	8,900	269,800
60-64	164,800	14,600	18,400	14,100	15,800	11,200	238,900
65-69	127,600	25,600	19,400	16,500	11,200	11,000	211,200
70-74	90,400	23,400	16,200	14,400	10,500	7,500	162,400
75-79	78,300	17,900	8,700	5,500	3,300	1,600	115,400
80-84	65,300	8,800	3,200	2,800	700	200	81,000
85+	64,300	2,100	0	700	200	200	67,600
<b>Total</b>	<b>1,104,000</b>	<b>102,200</b>	<b>79,500</b>	<b>67,400</b>	<b>52,600</b>	<b>40,570</b>	<b>1,446,200</b>

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100.

Totals may vary due to rounding

The following section examines the numbers of older people who live alone, or with their spouse, by age group and by functional disability status. We also present the numbers of people who live close to at least one of their children, either as co-resident or resident within the same county.

*Table 5 Household composition by age group, The Irish Longitudinal Study on Ageing (TILDA)*

	Age group of respondents					
	Living alone		Living with spouse only		Living with others (including children and spouse)	
	%	95% CI	%	95% CI	%	95% CI
N	526		633		5,205	
50-54	0		0		0	
55-59	8	[4.9,12.8]	8.7	[5.6,13.3]	83.3	[77.4,87.9]
60-64	9.90	[7.8,12.4]	11.70	[9.6,14.2]	78.4	[75.3,81.3]
65-69	11.00	[8.9,13.6]	13.40	[11.0,16.2]	75.6	[72.1,78.8]
70-74	9.30	[7.2,11.9]	12.10	[9.9,14.7]	78.6	[75.2,81.7]
75-79	10.80	[8.2,14.2]	13.30	[10.6,16.6]	75.8	[71.7,79.6]
80-84	15.60	[11.7,20.5]	8.90	[6.4,12.3]	75.5	[70.4,79.9]
85+	26.1	[21.3,31.5]	5.9	[3.4,10.0]	68	[62.1,73.3]
Total	12.3	[11.2,13.6]	11.2	[10.1,12.5]	76.5	[74.8,78.0]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

*Table 6 Estimated numbers of people aged 50 and over by household composition. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population			Total
	Living alone	Living with spouse only	Living with others (including children and spouse)75+	
50-54				299,900
55-59	21,600	23,500	225,000	270,100
60-64	23,600	27,900	187,300	238,900
65-69	23,200	28,300	159,700	211,200
70-74	15,100	19,600	127,500	162,300
75-79	12,500	15,400	87,500	115,500
80-84	12,600	7,200	61,200	81,000
85+	17,600	4,000	46,000	67,600
Total	126,300	125,900	894,100	1,446,500

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100. Totals may vary due to rounding.



Table 7 Household composition by functional disability and age group, The Irish Longitudinal Study on Ageing (TILDA)

Age group	Functional disability					
	No disability		IADL only disability		Any ADL disability	
	%	95% CI	%	95% CI	%	95% CI
N	1,696		1,979		1,531	
<b>Living alone</b>						
50-54	0					
55-59	79.8	[46.4,94.7]	0		20.2	[5.3,53.6]
60-64	91.7	[82.9,96.2]	1.9	[0.6,5.7]	6.4	[2.5,15.8]
65-69	86.2	[75.3,92.8]	2.7	[0.7,10.3]	11.1	[5.3,21.8]
70-74	91.5	[80.8,96.5]	2.2	[0.5,10.1]	6.3	[2.1,17.0]
75-79	66.1	[50.7,78.7]	6.2	[2.0,17.4]	27.7	[16.2,43.2]
80-84	50.9	[35.0,66.7]	9.5	[3.3,24.1]	39.6	[25.1,56.2]
85+	26.2	[17.3,37.5]	11	[5.3,21.3]	62.9	[50.7,73.6]
Total	67.2	[61.9,72.2]	5.5	[3.3,8.8]	27.3	[22.6,32.5]
<b>Living with spouse only</b>						
50-54	0					
55-59	97.8	[85.2,99.7]	0		2.2	[0.3,14.8]
60-64	91.4	[84.3,95.4]	2.7	[0.9,8.1]	6	[2.7,12.5]
65-69	93.6	[86.3,97.1]	0.8	[0.1,5.8]	5.6	[2.3,12.8]
70-74	86.7	[79.1,91.7]	3.7	[1.2,10.7]	9.6	[5.6,16.0]
75-79	85.2	[76.2,91.2]	2.8	[0.9,8.9]	11.9	[6.5,20.9]
80-84	77.8	[62.8,87.9]	8.2	[2.8,21.3]	14	[6.1,29.0]
85+	37.6	[20.6,58.4]	25.9	[12.2,46.9]	36.5	[15.9,63.4]
Total	86.3	[82.5,89.4]	4.1	[2.5,6.7]	9.6	[7.1,13.0]
<b>Living with others (including children and spouse)</b>						
50-54	0					
55-59	94.1	[89.4,96.8]	0.4	[0.1,3.0]	5.4	[2.9,10.1]
60-64	92.3	[89.8,94.3]	1.5	[0.8,2.9]	6.2	[4.4,8.5]
65-69	93.6	[91.2,95.3]	1.3	[0.7,2.6]	5.1	[3.6,7.4]
70-74	89.9	[87.1,92.2]	2.5	[1.4,4.3]	7.6	[5.6,10.1]
75-79	86.3	[82.3,89.5]	3	[1.7,5.1]	10.8	[7.9,14.4]
80-84	80.1	[74.8,84.5]	7.5	[4.9,11.2]	12.5	[8.9,17.1]
85+	58.4	[51.1,65.4]	12	[8.1,17.4]	29.6	[23.2,36.8]
Total	87.1	[85.6,88.4]	3.3	[2.6,4.1]	9.6	[8.5,11.0]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

Table 8 Estimated numbers of people aged 50 and over by household composition. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.

	Estimated population			Total
	No disability	IADL only disability	Any ADL disability	
<b>Living alone</b>				
50-54				
55-59	19,200	0	4,800	24,000
60-64	24,500	500	1,700	26,700
65-69	22,650	700	2,900	26,300
70-74	18,000	400	1,200	19,600
75-79	11,600	1,100	4,900	17,500
80-84	9,200	1,700	7,100	18,000
85+	5,550	2,300	13,300	21,200
<i>Total Living alone</i>	103,050	4,900	36,000	153,400
<b>Living with spouse only</b>				
50-54				
55-59	25,500	0	5,500	31,000
60-64	28,900	900	12,700	42,400
65-69	30,000	300	10,100	40,300
70-74	22,200	900	16,000	39,000
75-79	18,400	600	14,600	33,600
80-84	8,000	800	12,200	21,000
85+	1,800	1,250	20,100	23,100
<i>Total Living with spouse only</i>	134,700	4,750	91,200	530,600
<b>Living with others</b>				
50-54				
55-59	235,100	1,000	13,500	249,600
60-64	195,500	3,200	13,100	211,800
65-69	169,000	2,350	9,200	180,600
70-74	149,300	4,150	12,600	166,000
75-79	106,200	3,700	13,300	123,100
80-84	69,800	6,500	10,900	87,300
85+	32,200	6,600	16,300	55,100
<i>Total Living with others</i>	935,000	27,500	88,900	1,073,500
<b>Total</b>				
50-54				299,900
55-59	21,600	23,500	225,000	270,100
60-64	23,600	27,900	187,300	238,900
65-69	23,200	28,300	159,700	211,200
70-74	15,100	19,600	127,500	162,300
75-79	12,500	15,400	87,500	115,500
80-84	12,600	7,200	61,200	81,000
85+	17,600	4,000	46,000	67,600
<b>Total</b>	126,300	125,900	894,100	1,446,500

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100. Totals may vary due to rounding.

Table 9 Household composition by functional disability status, The Irish Longitudinal Study on Ageing (TILDA)

	Functional disability status							
	No disability		IADL only disability		Any ADL disability		Total	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
N	4,521		162		523		5,206	
Co-resident children	27.3	[25.6,29.1]	21.9	[15.5,30.0]	18.9	[15.2,23.4]	26.1	[24.6,27.8]
At least one child in the county	43.9	[41.8,45.9]	49.6	[39.7,59.5]	47.3	[41.9,52.6]	44.5	[42.5,46.4]
Child lives in another county	9.8	[8.7,11.1]	4.9	[2.0,11.6]	7.9	[5.5,11.1]	9.4	[8.3,10.6]
Child lives in another country	3.6	[3.0,4.4]	4.1	[1.5,10.7]	5.1	[3.0,8.7]	3.8	[3.2,4.6]
No children	15.4	[14.0,16.9]	19.5	[12.7,28.8]	20.8	[16.5,25.9]	16.2	[14.8,17.6]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

*Table 10 Estimated numbers of people aged 50 by proximity to children and functional disability. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population			Total
	No disability	IADL only disability	Any ADL disability	
<b>Total</b>				
Co-resident children	333,700	11,700	32,300	377,700
At least one child in the county	536,600	26,500	80,700	643,900
Child lives in another county	119,800	2,600	13,500	135,900
Child lives in another country	44,000	2,200	8,700	54,900
No children	188,200	10,400	35,500	234,200
<b>Total</b>	<b>1,222,300</b>	<b>53,500</b>	<b>170,700</b>	<b>1,446,500</b>

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100. Totals may vary due to rounding.

This section presents the numbers of older people who receive home help and those who receive help with the functional disabilities from family caregivers, and their relationship to the caregivers.

*Table 11 Proportion of population aged 50 years and older receiving any home help (private and state-provided) by age group, The Irish Longitudinal Study on Ageing (TILDA)*

	Age group of respondents			
	No home help		Any home help (both private and state provided)	
	%	95% CI	%	95% CI
N	1,696		1,969	
50-54	100			
55-59	98.3	[94.3,99.5]	1.7	[0.5,5.7]
60-64	99.6	[99.0,99.9]	0.4	[0.1,1.0]
65-69	97.9	[96.5,98.8]	2.1	[1.2,3.5]
70-74	96.5	[94.4,97.8]	3.5	[2.2,5.6]
75-79	90.3	[87.2,92.7]	9.7	[7.3,12.8]
80-84	82.6	[78.0,86.3]	17.4	[13.7,22.0]
85+	60.5	[54.0,66.7]	39.5	[33.3,46.0]
Total	91.8	[90.7,92.8]	8.2	[7.2,9.3]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

*Table 12 Estimated numbers of people aged 50 and over receiving any home help (private and state-provided) by age group. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population		
	No home help	Any home help (both private and state provided)	Total
N	1,696		1,969
50-54	299,900	0	299,900
55-59	265,500	4,600	270,100
60-64	237,900	1,000	238,900
65-69	206,800	4,400	211,200
70-74	156,600	5,700	162,300
75-79	104,300	11,200	115,500
80-84	66,900	14,100	81,000
85+	40,900	26,700	67,600
Total	1,378,800	118,600	1,446,500

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100. Totals may vary due to rounding.

*Table 13 Proportion of population aged 50 years and older receiving any care from a family caregiver by age group, The Irish Longitudinal Study on Ageing (TILDA)*

	Family caregiving			
	No family caregiver		Any family caregiver	
	%	95% CI	%	95% CI
N	4,832		393	
50-54	100	0		
55-59	98.1	[94.2,99.4]	1.9	[0.6,5.8]
60-64	96.3	[94.7,97.4]	3.7	[2.6,5.3]
65-69	96.5	[94.8,97.6]	3.5	[2.4,5.2]
70-74	94.7	[92.7,96.2]	5.3	[3.8,7.3]
75-79	92	[89.1,94.1]	8	[5.9,10.9]
80-84	84.5	[79.8,88.2]	15.5	[11.8,20.2]
85+	64.3	[58.6,69.7]	35.7	[30.3,41.4]
Total	91	[89.8,92.0]	9	[8.0,10.2]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

*Table 14 Estimated numbers of people aged 50 and over receiving any care from a family caregiver by age group. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population		
	No family caregiver	Any family caregiver	Total
N	4,813	393	5,206
50-54	299,900	0	599,900
55-59	265,00	5,100	270,100
60-64	230,000	8,800	238,900
65-69	203,800	7,400	211,200
70-74	153,700	8,600	162,300
75-79	106,200	9,200	115,500
80-84	68,500	12,600	81,000
85+	43,400	24,100	67,600
Total	1,370,600	75,800	1,446,500

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100.

Totals may vary due to rounding.

*Table 15 Proportion of population aged 50 years and older receiving help with activities of daily living (ADL) from a family caregiver by relationship of caregiver to recipient and age group, The Irish Longitudinal Study on Ageing (TILDA)*

	Family caregiving							
	No family caregiver		Spouse		Child		Other relative	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
N	5,100		61		27		18	
50-54	100							
55-59	100							
60-64	98.6	[97.3,99.2]	0.9	[0.4,1.8]	0.5	[0.2,1.8]	0	
65-69	98.6	[97.3,99.2]	1.1	[0.6,2.2]	0.1	[0.0,0.6]	0.2	[0.0,1.5]
70-74	98.3	[97.2,99.0]	1.6	[0.9,2.7]	0.1	[0.0,0.7]	0	
75-79	98.1	[96.3,99.1]	0.9	[0.4,2.0]	0.7	[0.2,2.6]	0.3	[0.0,2.0]
80-84	96.9	[94.5,98.3]	2.2	[1.1,4.3]	0.7	[0.2,3.0]	0.1	[0.0,1.0]
85+	94.1	[90.5,96.4]	1.1	[0.4,3.0]	3.5	[1.8,6.4]	1.4	[0.4,4.4]
Total	97.9	[97.3,98.4]	1.1	[0.9,1.5]	0.7	[0.4,1.1]	0.2	[0.1,0.6]

Note: Data from Wave 5 (2018) TILDA weighted to account for population

*Table 16 Estimated numbers of people aged 50 and over receiving help with activities of daily living (ADL) from a family caregiver by relationship of caregiver to recipient and age group. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population				Total
	No family caregiver	Spouse	Child	Other relative	
50-54	299,900				299,900
55-59	270,100	0	0	0	270,100
60-64	238,900	0	0	0	238,900
65-69	208,300	1,900	1,100	0	211,200
70-74	160,000	1,800	200	300	162,300
75-79	113,500	1,800	100	0	115,500
80-84	79,500	700	600	200	81,000
85+	65,500	1,500	500	100	67,600
Total	1,135,700	7,700	2,400	600	1,446,500

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100. Totals may vary due to rounding.

*Table 17 Proportion of population aged 50 years and older receiving help with instrumental activities of daily living (IADL) from a family caregiver by relationship to caregiver and age group, The Irish Longitudinal Study on Ageing (TILDA)*

	Family caregiving							
	No family caregiver		Spouse		Child		Other relative	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
N	5,100		61		27		18	
50-54	100							
55-59	99.1	[97.3,99.7]	0.9	[0.3,2.7]	0		0	
60-64	97.1	[95.7,98.1]	2	[1.3,3.2]	0.8	[0.3,2.0]	0	
65-69	98	[96.7,98.8]	1.5	[0.9,2.6]	0.3	[0.1,1.1]	0.2	[0.0,1.5]
70-74	96.9	[95.4,97.9]	2.2	[1.4,3.4]	0.9	[0.4,2.1]	0	
75-79	94.9	[92.5,96.6]	3.5	[2.2,5.6]	1.3	[0.6,2.9]	0.3	[0.0,2.0]
80-84	91.3	[87.9,93.8]	4.7	[2.9,7.6]	3.5	[2.0,6.0]	0.5	[0.2,1.7]
85+	77.7	[72.5,82.2]	10	[7.0,14.1]	11.2	[7.9,15.6]	1.1	[0.3,3.6]
Total	94.4	[93.5,95.2]	3.2	[2.6,3.9]	2.2	[1.7,2.8]	0.2	[0.1,0.5]

*Table 18 Estimated numbers of people aged 50 and over receiving any help with instrumental activities of daily living (IADL) from a family caregiver by relationship to caregiver and age group. Populations estimated using The Irish Longitudinal Study on Ageing (TILDA) and 2016 Census population.*

	Estimated population				Total
	No family caregiver	Spouse	Child	Other relative	
50-54	299,900				299,900
55-59	267,700	2,400	0	0	270,100
60-64	231,900	4,800	1,900	0	238,600
65-69	207,000	3,200	650	400	211,200
70-74	157,200	3,600	1,500	0	162,300
75-79	109,600	4,000	1,500	400	115,500
80-84	74,000	3,800	2,800	400	81,000
85+	52,500	6,800	7,600	700	67,600
Total	1,399,900	28,600	15,900	1,900	1,446,200

Note: Data from Wave 5 (2018) TILDA weighted to account for population, rounded to nearest 100. Totals may vary due to rounding.



## Tilda sampling frame and methods summary

### Appendix

Sampling for the first wave of TILDA was conducted using the RANSAM random sampling procedure (Whelan and Savva 2010 & ESRI RANSAM citation), with the Irish Geodirectory as a sampling frame. The Geodirectory is a complete listing of all residential addresses in the Republic of Ireland recorded by the Irish Postal Service (An Post) (Donoghue 2018). The addresses sampled were selected by first grouping addresses into clusters, based on District Electoral Divisions, then a number of clusters were randomly selected, and finally, 50 addresses were randomly selected from each cluster (Whelan and Savva 2010). The final sample was of 8,174 individuals aged 50 and over, from 6,279 households, as well as 330 partners aged under 50 (young partners) (total = 8,504). This constituted a 62% response rate for households with an eligible participant. Wave 1 interviews were completed between October 2009 and February 2011. Data were collected through three different formats: Computer Assisted Personal Interview (CAPI), Self-Completion Questionnaire (SCQ), and Health Assessment.

All participants at each wave completed a CAPI interview. CAPI interviews were completed in the participant's own home by a trained social interviewer and included items on the participant's health, economic and social circumstances, as well as some cognitive measures. All participants were invited to complete a health assessment at Waves 1 and 3 and forthcoming wave 6. Detailed health assessments were not carried out at Waves 2, 4 and 5 but the participants completed some objective measures in these waves important for frailty. At Wave 1, participants were invited to attend a dedicated health centre. Participants who preferred not to travel to attend a health assessment due to mobility or other issues were offered a health assessment at home. Home health assessments measured a reduced number of health measures due to the practicalities of completing the assessment at home. All health assessments were carried out by trained research nurses, and included anthropometric measures such as height and weight, physical function measures such as Timed-Up-and-Go and grip strength, detailed cardiovascular, mood and cognitive measures. The in-centre health assessment also collected more detailed measures of cardiovascular, bone, and eye health and other senses (Cronin et al., 2013). During Wave 1, a total of 5,894 over 50s participants completed a health assessment (72.1%), 860 of which completed a health assessment at home.