Society of Actuaries in Ireland

Demography Forum

3rd November 2022

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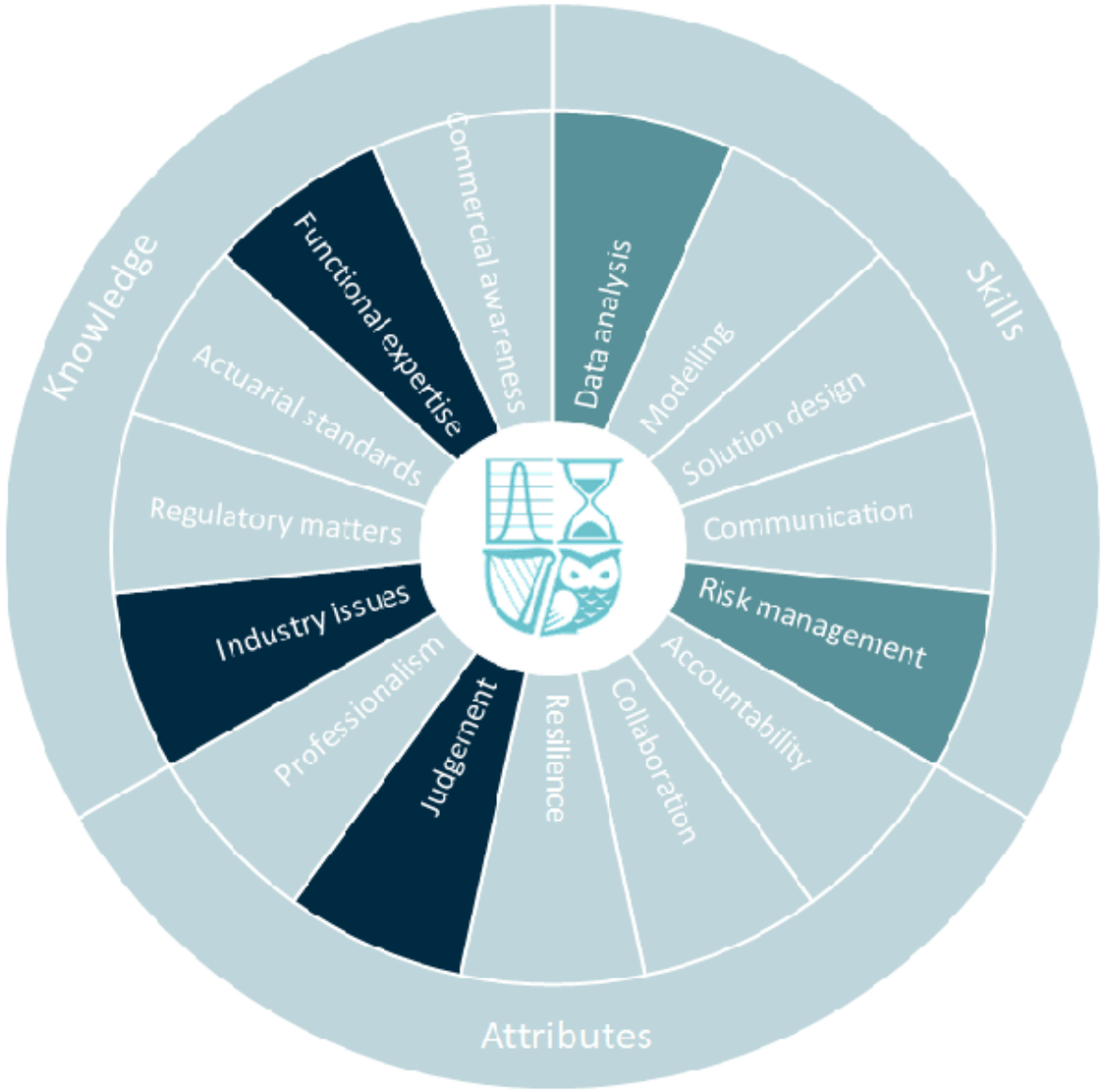
Competency Framework Wheel



Click on **this link** for the summary descriptions of the competencies that are covered in this webinar:

Data Analysis
Risk Management
Judgement
Industry issues
Functional expertise

Agenda

SAI Demography Committee Update	Karl Murray (Demography Committee Chair)
Excess mortality during the COVID-19 pandemic	Caroline Twomey (workstream lead)
CMI Update	Matthew Edwards (CMI Executive)
Seasonal Mortality at Older Ages and the Implications for Mortality and Longevity Risk	Mary Hall (DCU) and Linda Daly (UCC)
BREAK	
Public Health Risks post COVID and the outlook for future Pandemics	Dr Richard Braun (SCOR, Chief Medical Officer)
Impact of COVID-19 on health including cancer screening	Professor Patricia Fitzpatrick (UCD, epidemiologist)

Society of Actuaries in Ireland

Overview of the work of the Demography Committee

Karl Murray

3rd November 2022

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Committee Membership

- Linda Daly
- Ramona Dolan (SAI)
- Evan Hanley
- Aidan Kennedy
- Michael Lavin
- Julie McCarthy
- Karl Murray (Chair)
- Shane Prendergast
- Niall Quinn
- Caroline Twomey

Thank you to all previous committee members!

Committee Terms of Reference

- Supporting actuaries in relation to areas of their work affected by demographics
- Assisting other practice committees, including the development of ASPs
- Demographic-related research or studies relevant to Irish actuaries
- Dissemination of information to SAI members
- Building worthwhile relationships with external parties (including other actuarial bodies)

Review of 2019-2022

- Most recent Forum was held in Feb 2019. Committee update provided at Dec 2020 SAI Annual Convention.
- Completed the first Irish Insured Lives Mortality Investigation (IILMI)
- Updated the SAPs Pensioner Mortality study
- Completed a paper on modelling longevity in Ireland in partnership with the CMI
- Update of Transfer Values mortality assumptions

Review of 2019-2022 (cont.)

- Review of best estimate mortality projection methods for the Irish population
- Review of mortality basis used in the Irish courts
- Excess Mortality sub-group of the Covid-19 Action Group
- Engaged with the UNICEF on life expectancy at birth in 2021

Future Work

- Planning a detailed study of Irish insured lives experience in partnership with the CMI
  - Cover assurances and critical illness experience
  - Seeking wide participation across domestic life offices
  - Initial workshop to be held with participants before end of year
  - CMI Secretariat to undertake collection and processing of individual offices' data
  - Analysis of experience and production of Working Paper to be carried out by SAI Demography Committee with review and input from CMI Assurances Committee

Future Work (cont.)

- Annuitant experience
- Update of SAPs study
- Covid-19 impacts
- Updating ASPs
- Participation at the IAA Virtual Mortality Forum
  - Caroline Twomey and Linda Daly are members
- Continue to build our relationship with other bodies including the CSO and the CMI

Society of Actuaries in Ireland

Excess Mortality during the COVID-19 Pandemic
Excess Mortality Sub-Group

Caroline Twomey

3rd November 2022

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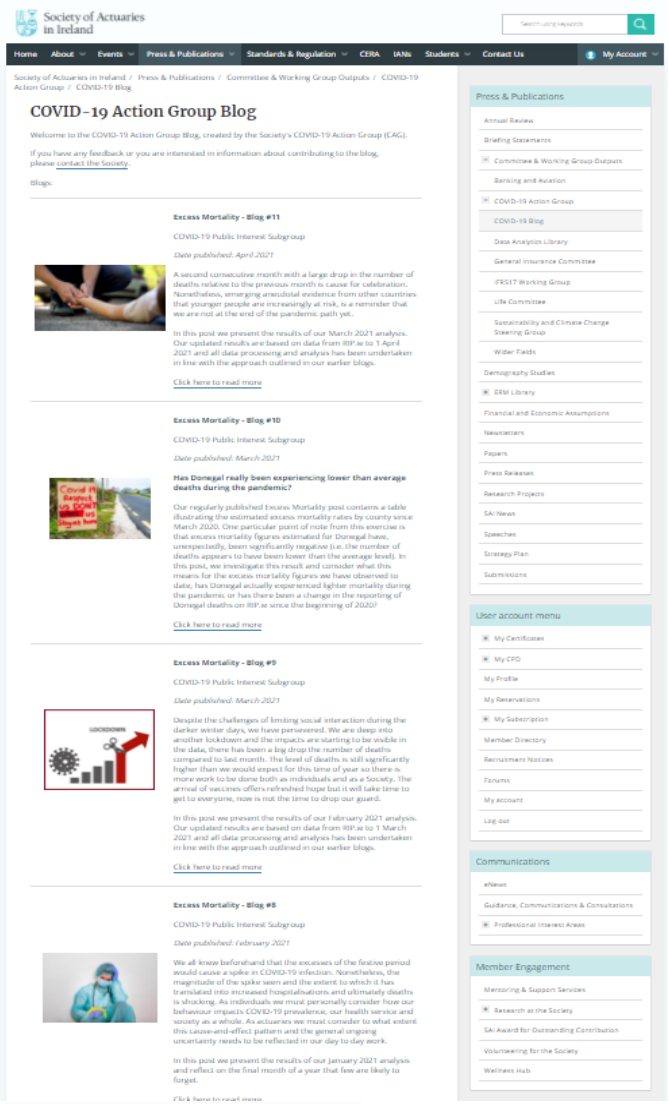
Competency Framework Wheel

Agenda

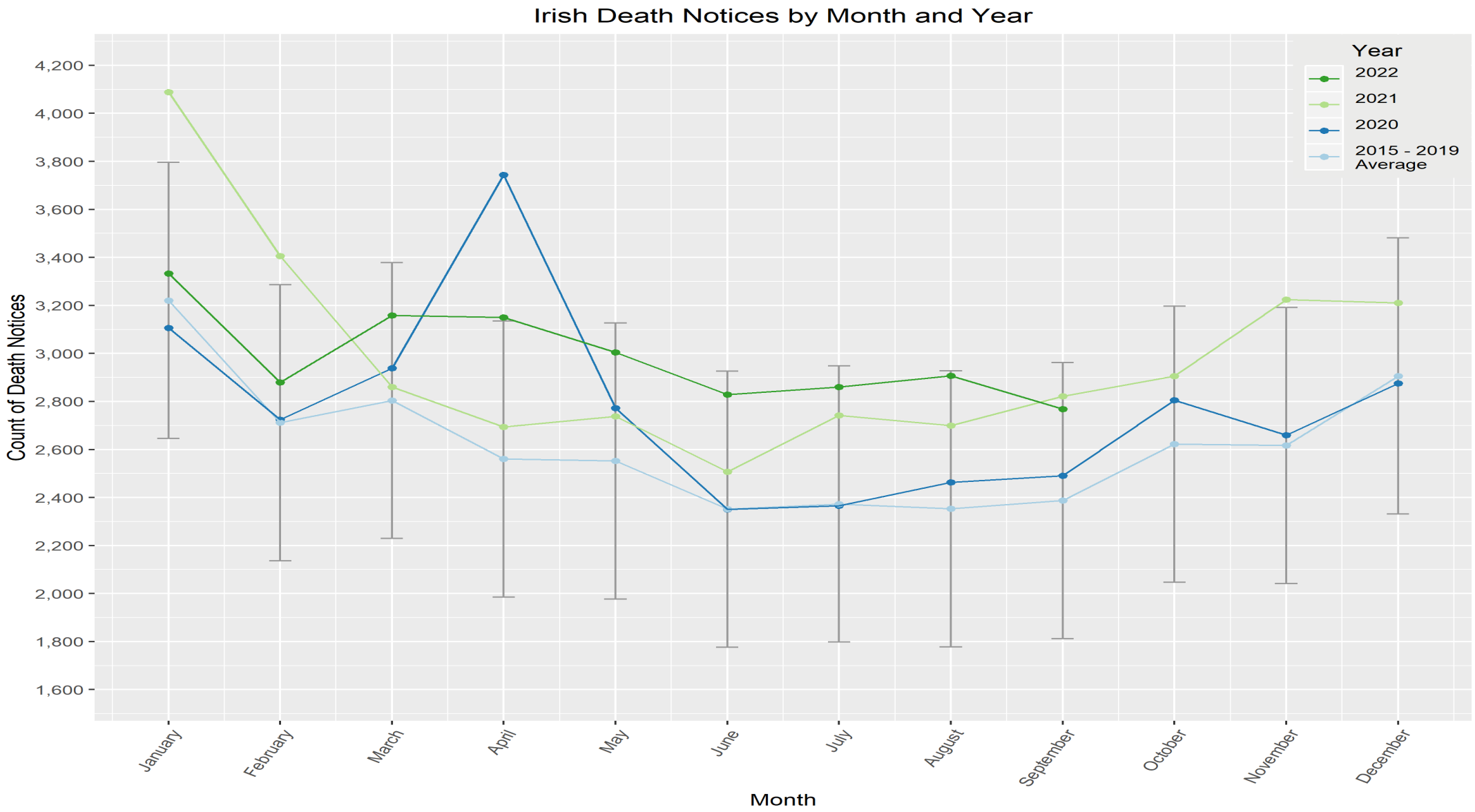
- History of the excess mortality sub-group
- Update on excess mortality
  - Overall
  - Gender bias
  - Population adjusted
- Excess mortality vs COVID deaths
- Data source challenges, considerations and impact

History of the Excess Mortality Sub-Group

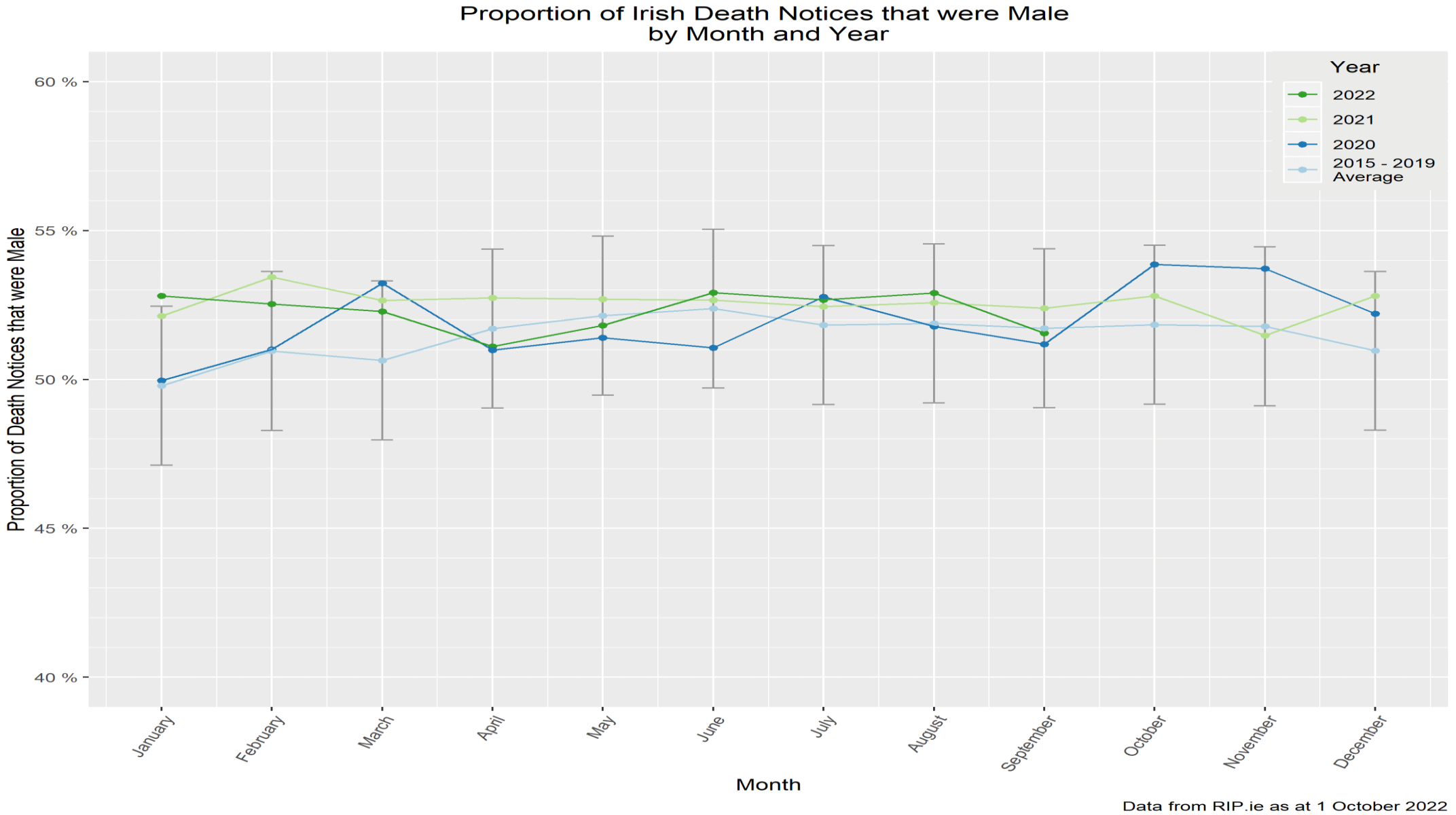
- COVID-19 Action Group was established in early 2020.
- Initially the group had two sub-groups, Members Interest and Public Interest. Excess Mortality was a workstream of the Public Interest sub-group
- Excess mortality workstream set up to investigate
  - Overall excess mortality
  - Gender bias in COVID19 mortality
- In mid 2021 the sub-groups merged with the excess mortality workstream being the most active remaining workstream
- In early 2022, the COVID-19 Action Group disbanded and the excess mortality workstream became a sub-group of the Society's Demography Committee
- This is the sub-group's final event before disbanding



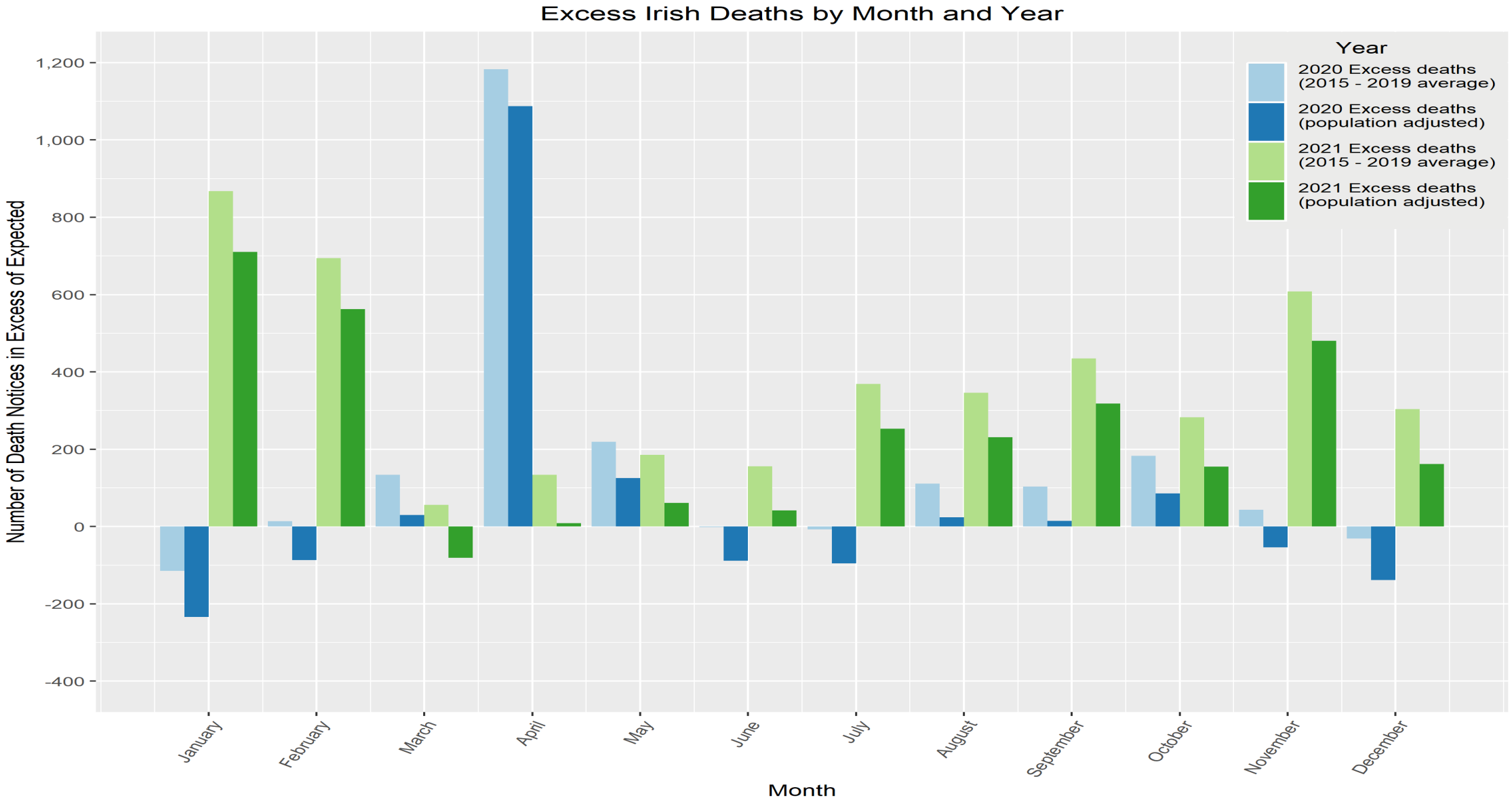
Update on excess mortality: overall



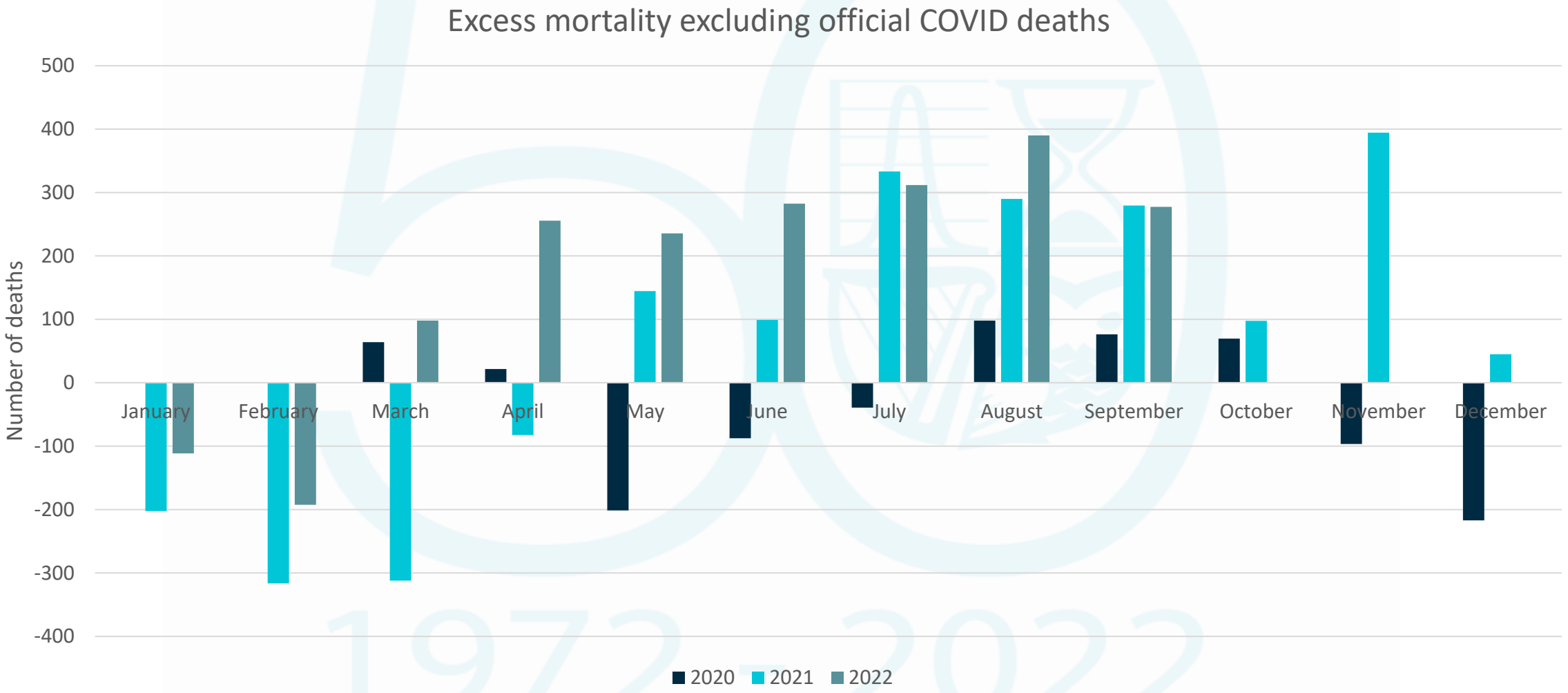
Update on excess mortality: gender bias



Update on excess mortality: population adjusted

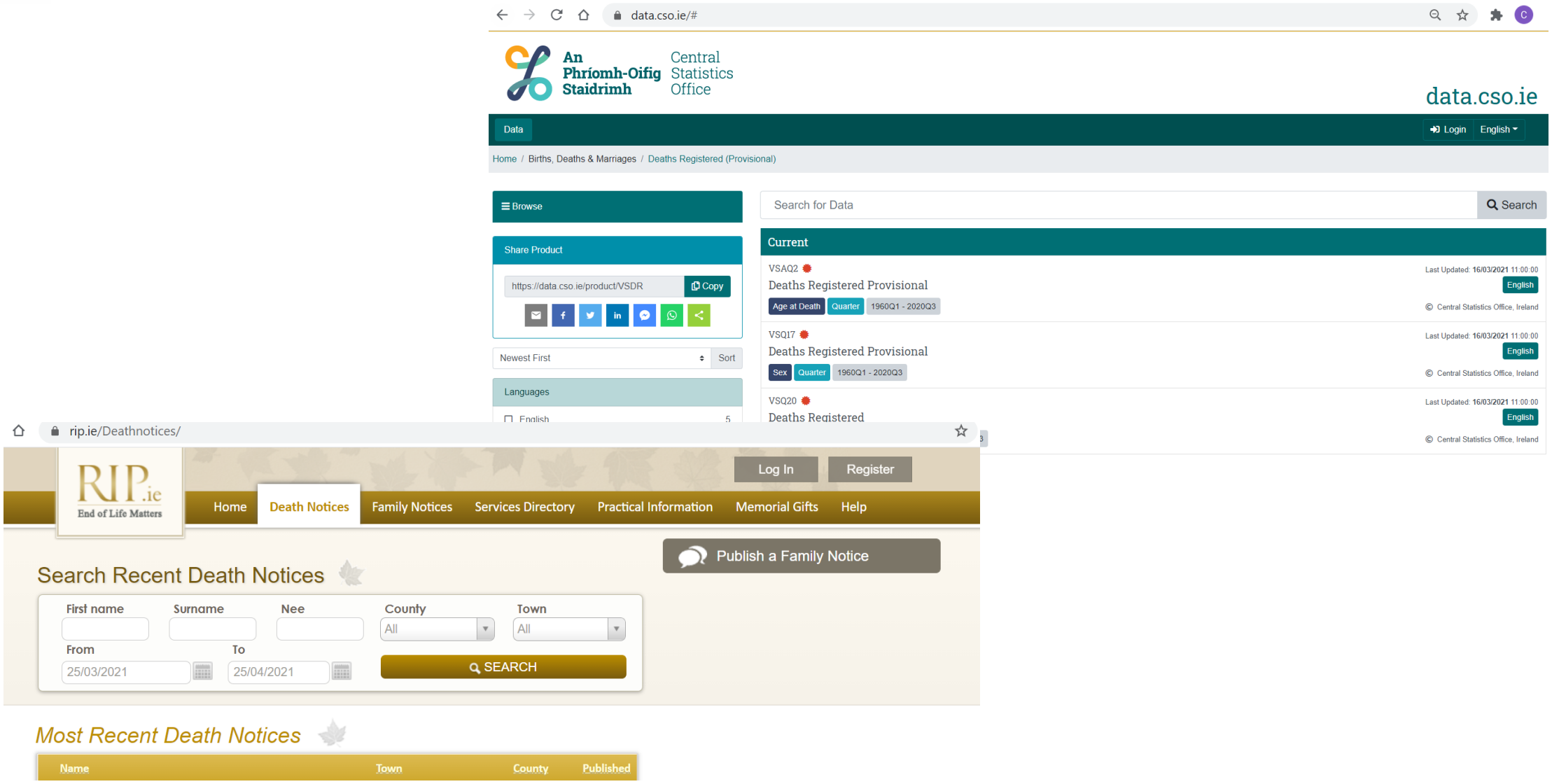


Excess mortality vs COVID-19 deaths

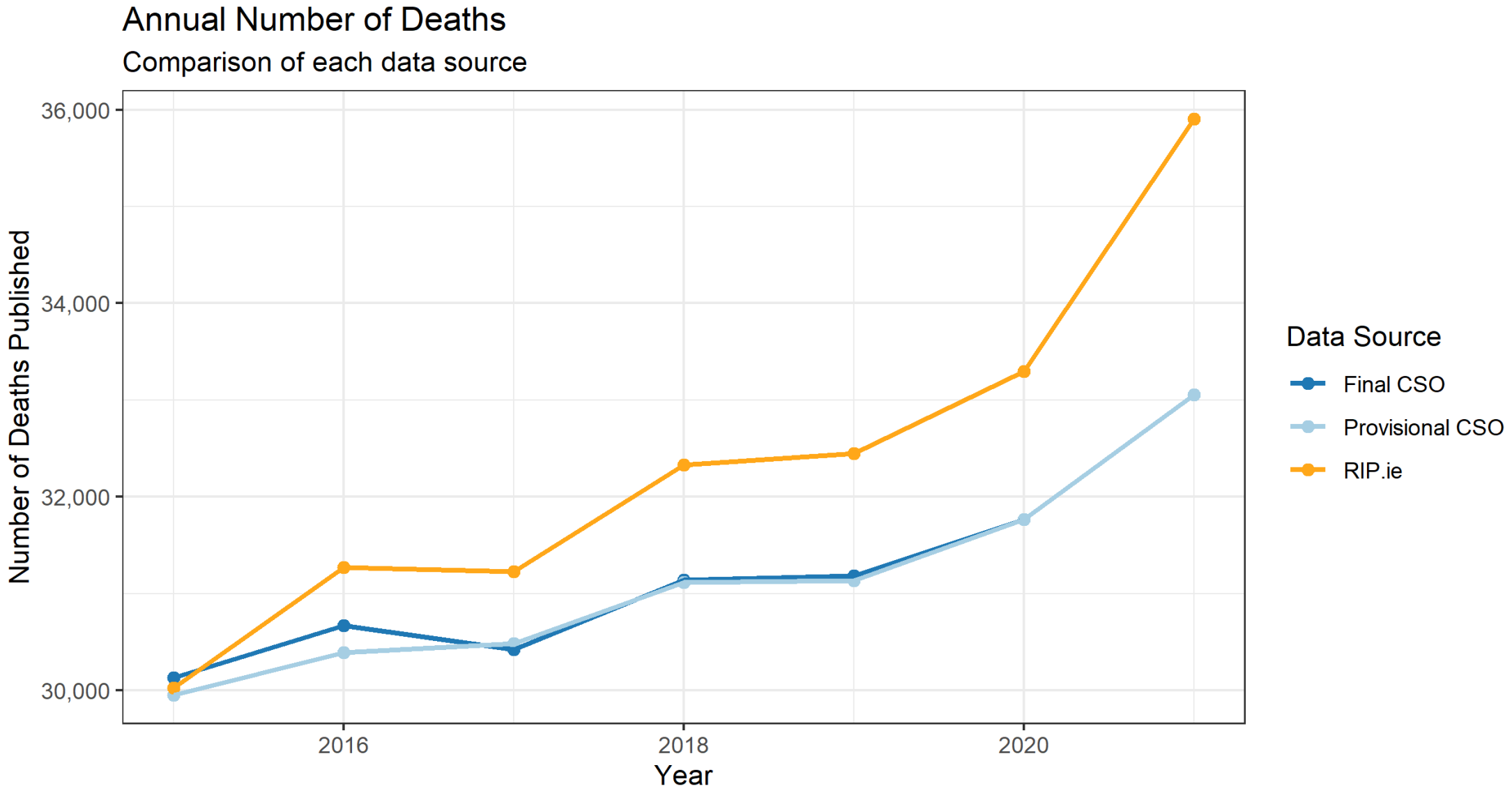


Excess mortality source: https://web.actuaries.ie/press-publications/committee-working-group-outputs/covid-19-action-group
COVID-19 deaths source: https://ourworldindata.org/coronavirus/country/ireland?country=IRL~GBR

Data source challenges, considerations and impact



Data source challenges, considerations and impact



Our thanks to…

The members of the excess mortality workstream and sub-group:

- John Nolan
- Samuel Linehan
- Stephen Brennan
- Áine Chambers
- Emma McCarron
- Tiago Pedro
- Alan Hardie
- Robert Wolfe
- Caroline Twomey
- Susan Conlon
- Sheila Harney
- David Brosnan
- Kelly Bruett

The Chairs of our "parent" groups:

- Dermot Marron, COVID-19 Action Group
- Karl Murray, Demography Committee

The Society staff supporting us:

- Philip Shier
- Catherine McBride
- Sheila Normanly
- Simeone Golden

Q&A

Please click on the '**Raise Hand**' icon

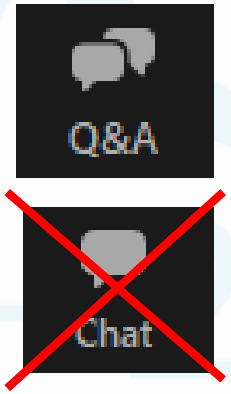
to ask a question aloud

and

wait to be unmuted

or

Use the **Q&A function** to ask a question



Continuous
Mortality Investigation

Institute and Faculty of Actuaries

SAI Demography Forum

Matthew Edwards

01 December 2022

Agenda

- CMI / SAI collaboration

- Recent CMI outputs and key insights from:
  - Assurances Committee
  - Annuities Committee
  - Mortality Projections Committee

- Questions

CMI – SAI collaboration

Question	Answer
Scope of analysis	Term assurances – mortality & CI (accelerated & standalone)
Data requirements	Prescribed format – to be discussed during a workshop
Coordination	**CMI Secretariat:** will handle insurers' data – process and share results with insurers – combine data to create aggregated dataset **Demography Committee:** undertake analysis of aggregated dataset **CMI Assurances Committee:** Provide technical guidance/review
Timescales	Data collection to start in 2023
Output	Working Paper available to CMI subscribers, accompanying blog or Exec Summary on SAI website

Assurances

Assurances – Overview

BAU

- Experience of term assurances (mortality and CI):
  - Analysis of data to end of 2021 – underway
  - 2016-2019 & 2020 analysis (May 2022)

Ad hoc

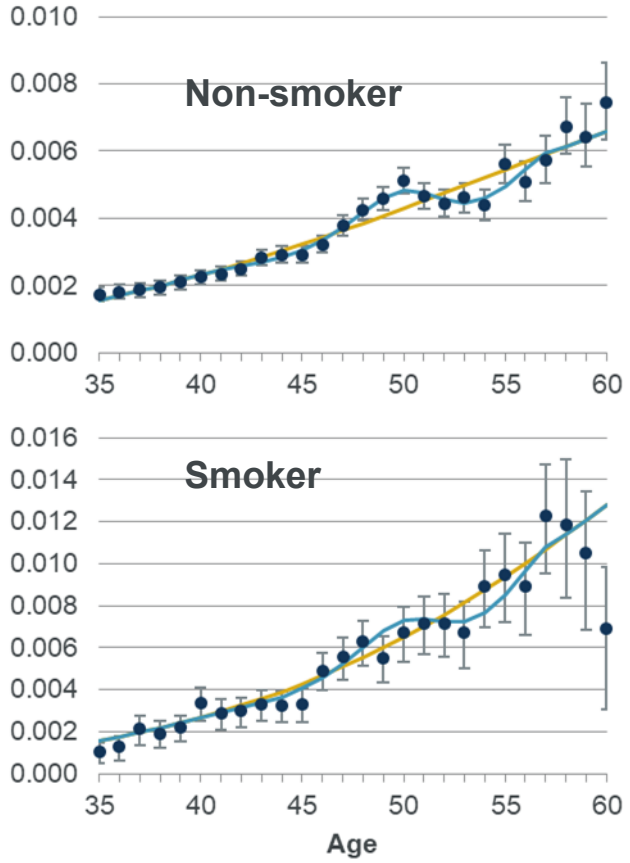
- Accelerated CI by cause of claim (2017-2020) – underway
- Accelerated CI by cause of claim (2015-2018) (Jun 2021)

Latest tables

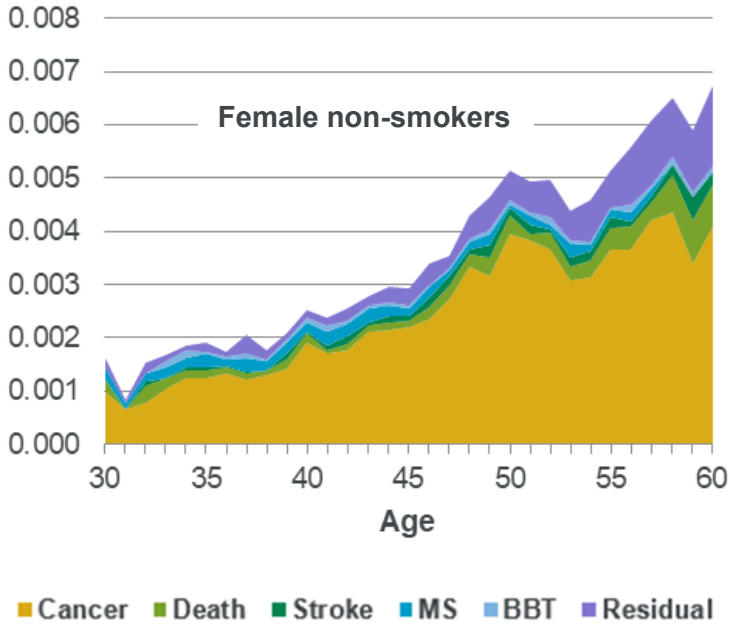
- “16” Series term mortality (incl. terminal illness) and accelerated CI

Assurances – Insights

Crude, (initial) fitted and proposed rates by age (WP150)



Crude cumulative cause-specific rates (WP151)



Assurances – Insights

Chart 8C: 100A/E values by month in 2019 and 2020 – mortality

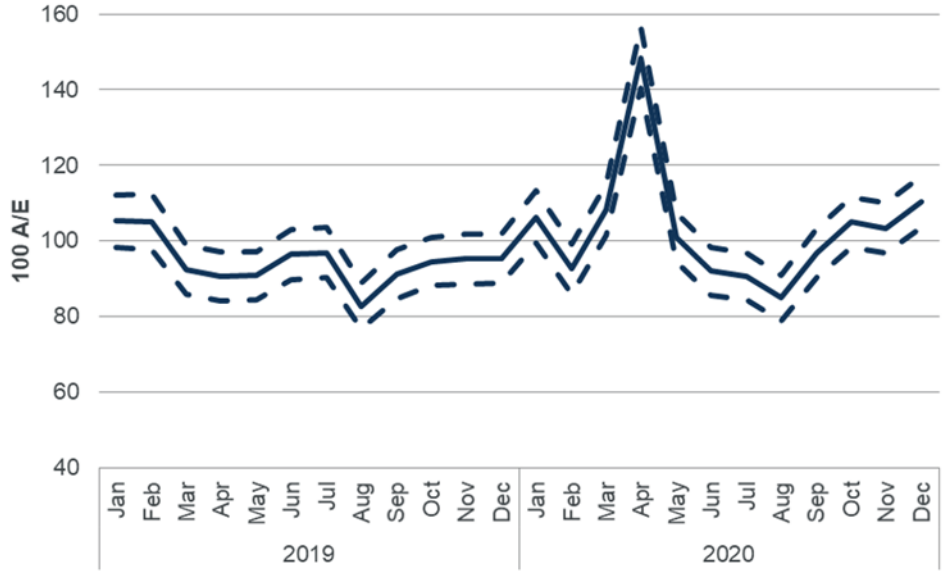
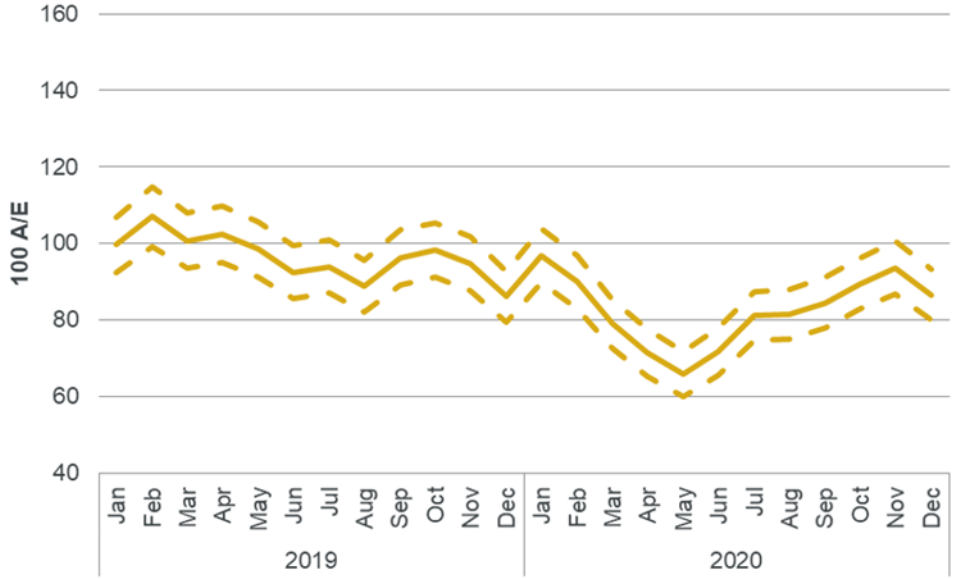


Chart 8D: 100A/E values by month in 2019 and 2020 – accelerated critical illness



Annuities

01 December 2022

Annuities – Overview

BAU

- Experience of pension annuities in payment data:
  - Analysis of data to end of 2021 – underway
  - 2016-2019, 2020 & HY2021 analysis (Mar 2022)

Ad hoc

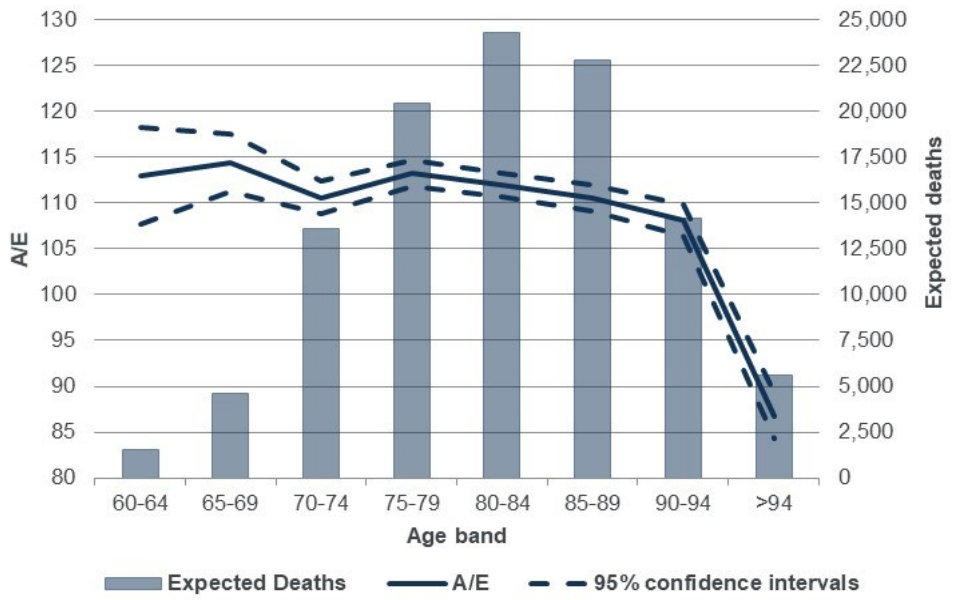
- Combined analysis of enhanced & standard annuities – underway
- Experience of mortality and long-term care of ERMs (2016-2019 & 2020) (Oct 2022)
- Experience of enhanced annuities (2011-2019 & HY2020) (Oct 2021)
- Experience of life office annuities (2013-2018) (Jul 2020)

Latest tables

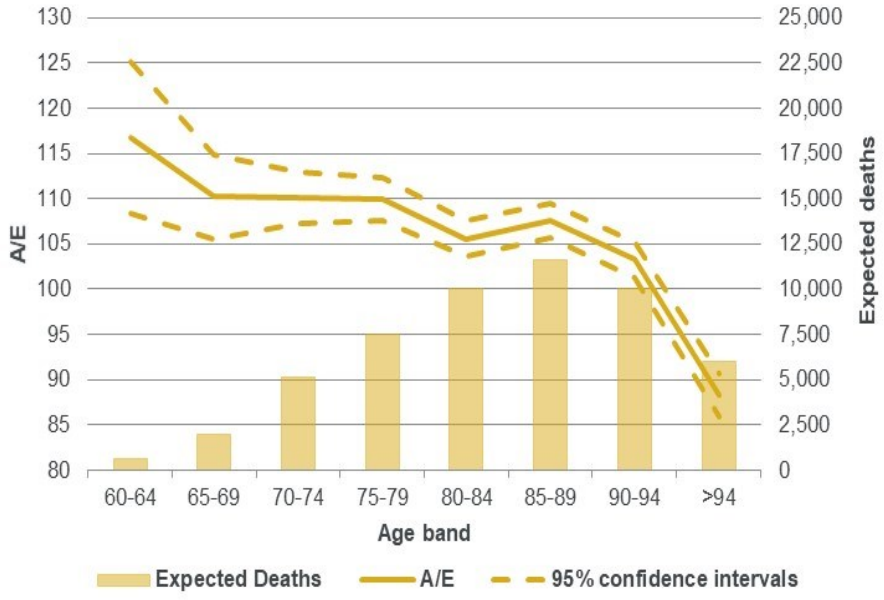
- “16” Series pension annuities in payment mortality tables

Annuities – Insights

100A/Es and expected deaths by age band for 2020 - males

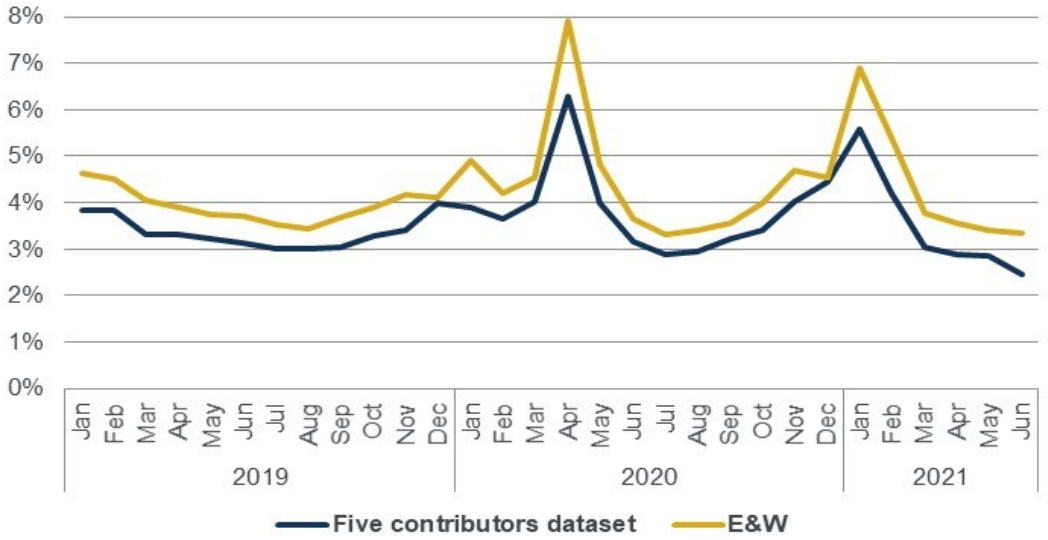


100A/Es and expected deaths by age band for 2020 - females

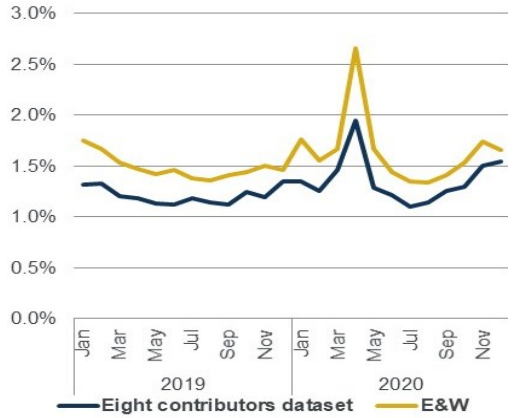


Annuities – Insights

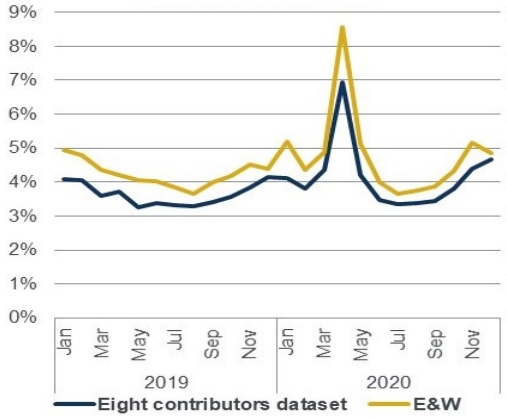
SMRs by month in 2019, 2020 and HY2021 by month – E&W population and Annuities five contributors dataset



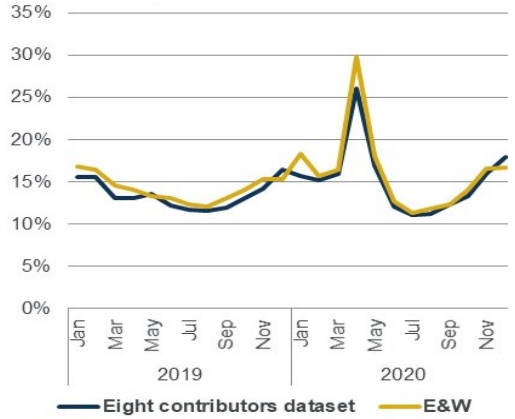
Ages 65-74:



Ages 75-84:

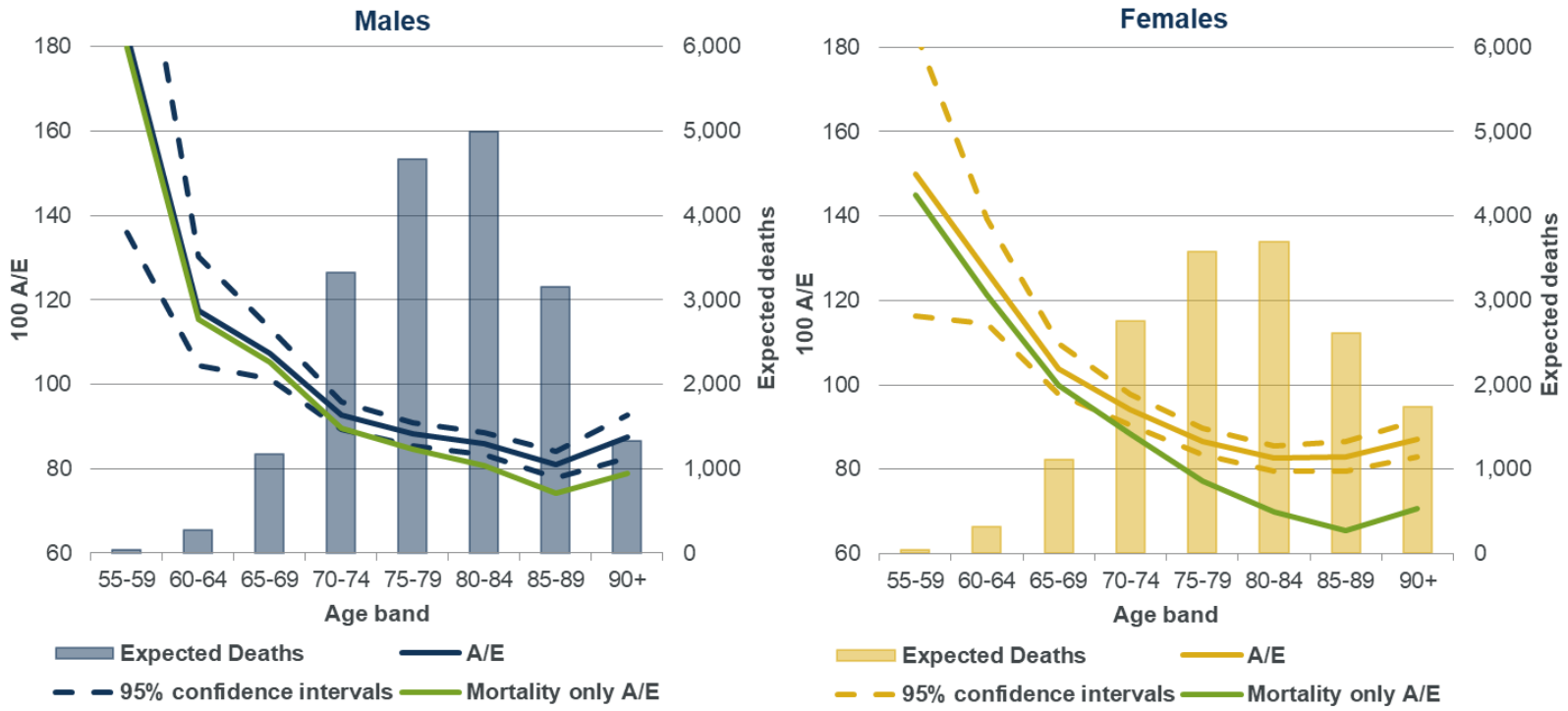


Ages 85-95:



Annuities – Insights

Mortality only (green) and mortality plus long-term care (navy/gold) experience of equity release mortgage holders in 2016-2019, compared with graduated UK population tables



MPC

01 December 2022

MPC – Overview

BAU

	2021	2022
CMI Model	CMI_2021: Mar 2022	CMI_2022: Likely to be delayed for census results
Interim update	Dec 2021	Expected Dec 2022
Benchmarking survey	Jun 2021	Jun 2022
Mortality monitoring	Weekly summaries Monthly/quarterly detail	Weekly summaries Quarterly detail

Ad hoc

- Blog – Impact of Census (initial results)
- Joint projects:
  - MRSC: on cause of death
  - SoA: fitting US and UK projection models to each other's data
  - SAI: calibration of CMI Model for Ireland

CMI Model & Irish population data

- CMI/SAI collaboration on using the CMI Model with Irish data.
- Comparison of mortality
  - Higher recent improvements in Ireland leads to similar current mortality in Ireland and England & Wales.
- Two approaches to using the CMI Model for Ireland:
  - Re-calibrate to Irish data, adjusting smoothing parameters to allow for the smaller size of the population; or
  - Use the standard model, but adjust the initial addition parameter to reflect higher recent mortality improvements in Ireland.
- Sensitivities in respect of key parameters
- Consideration of socio-economic differences and Irish assured lives.

Questions

Comments

Continuous
Mortality Investigation

Institute and Faculty of Actuaries

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01 December 2022

Mission, Vision, Aims & Objectives

Mission

- To produce high-quality impartial analysis, standard tables and models of mortality and morbidity for long-term insurance products and pension scheme liabilities on behalf of subscribers and, in doing so, to further actuarial understanding.

Vision

- To be regarded across the world as setting the benchmark for the quality, depth and breadth of analysis of industry-wide insurance company and pension scheme experience studies.

Mission, Vision, Aims & Objectives

Aims & Objectives

- Publish collated experience analysis results to subscribers on a regular basis, including relevant benchmarking of each firm's own results
- Publish standard decrement tables in line with the relevant actuarial standards for each product line
- Publish papers detailing the methods employed in producing the standard tables and the research conducted to justify these
- Publish projections in line with the relevant actuarial standards
- Publicise the work of the CMI to employees within subscribers and, where appropriate, more widely
- Maintain the number of firms subscribing to the CMI and increase the number where possible
- Obtain regular feedback from subscribers on what their needs are to ensure that output continues to remain valuable and relevant
- Identify new opportunities to provide data analysis for the benefit of our subscribers
- Provide value for money to our subscribers and produce all material for the benefit of our subscribers and not for profit
- Work with the Institute and Faculty of Actuaries to promote the expertise of the Actuarial Profession in the fields of mortality and morbidity
- Engage with volunteers to support their development and to ensure commitment and enthusiasm

Q&A

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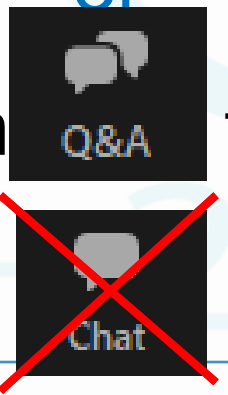
to ask a question aloud

and

<u>wait to be unmuted</u>

or

Use the **Q&A fun** 

to ask a question

Society of Actuaries in Ireland

The Pandemic: A Medical Perspective

Dr. Richard Braun

3rd November 2022

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Impact of COVID-19 on Health

Patricia Fitzpatrick

Full Professor of Epidemiology & Biomedical Statistics

Subject Head for Public Health, UCD

Consultant Epidemiologist, National Screening Service

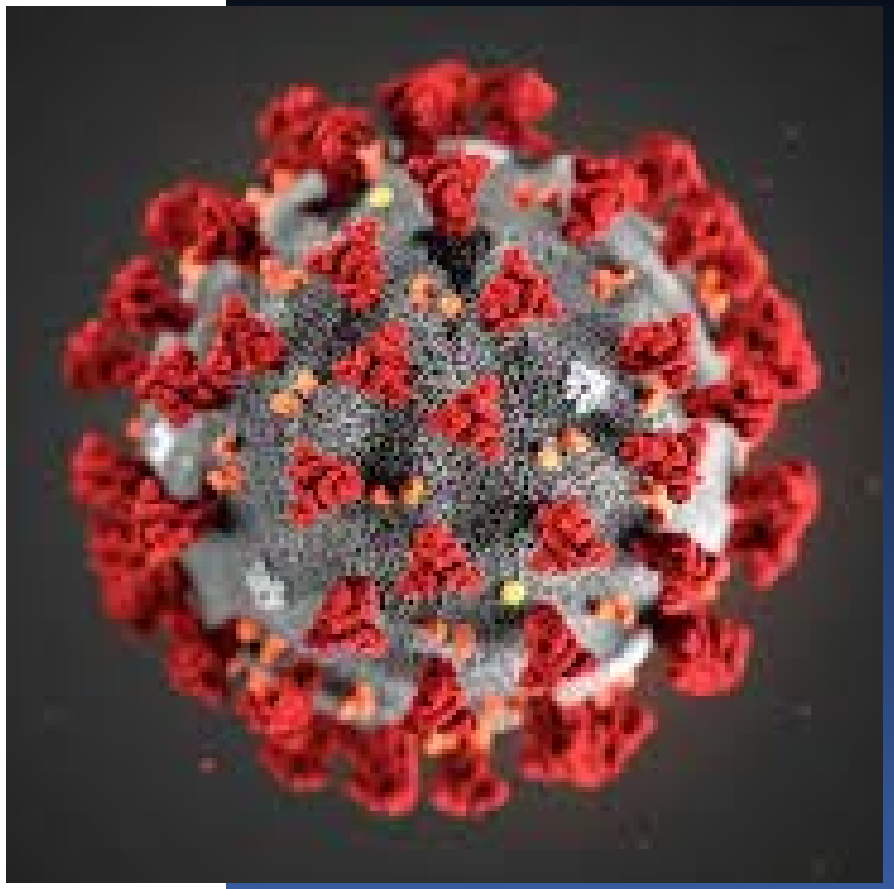
Consultant in Preventative Medicine, St Vincent's University Hospital

Society of Actuaries

November 3, 2022

Introduction

- COVID deaths
- Long Covid
- Cardiovascular disease
- Cancer
- Cancer screening – secondary prevention
- Other communicable disease
- Mental health
- Effect of lockdown / isolation on lifestyle factors
- Issues with COVID-19 international comparisons
- Excess mortality



COVID Deaths Ireland

Report on COVID-19 deaths reported in Ireland

Report produced by Health Protection Surveillance Centre on 17/10/2022

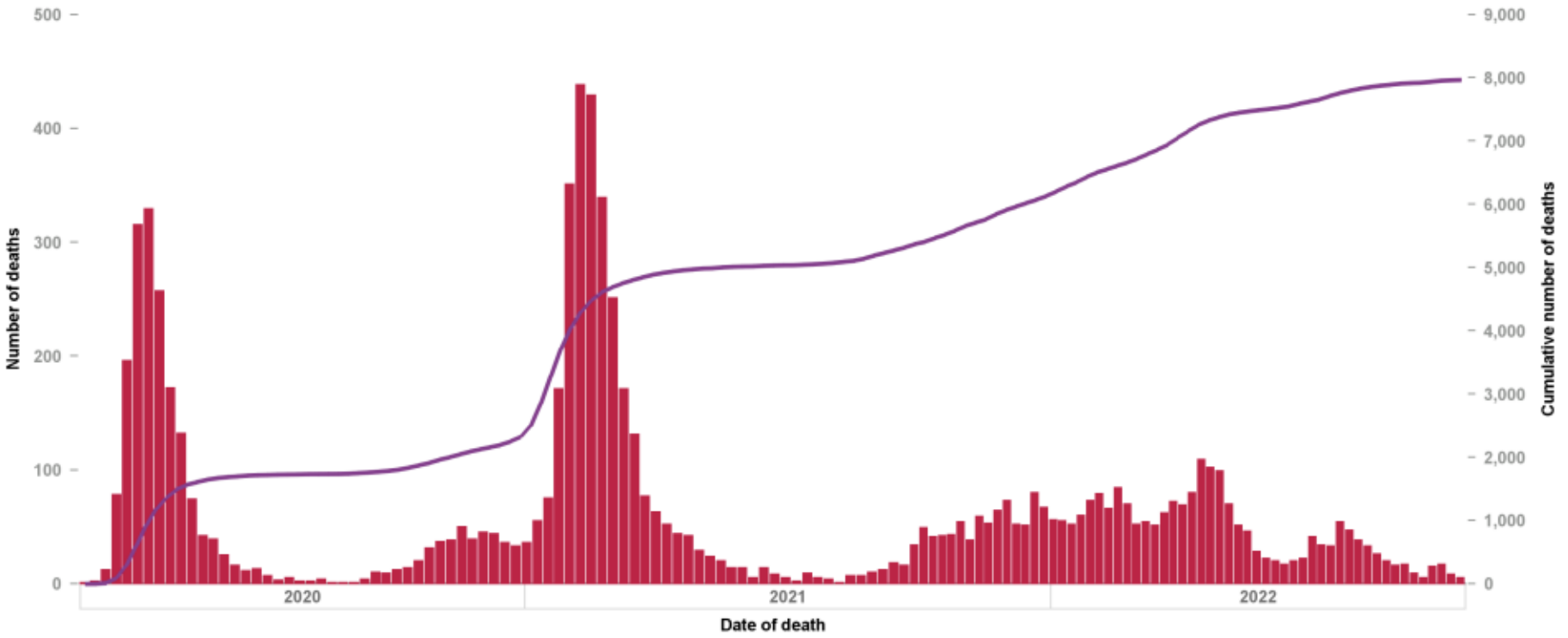


Figure 1: Total number of COVID-19 deaths in Ireland and cumulative number by week of death, cases with a date of notification from 01/03/2020 to 15/10/2022 00:00:00. Date of death reported for 7,970 of deaths.

Table 2: Summary characteristics of COVID-19 deaths in Ireland, cases with a date of notification from 01/03/2020 to 15/10/2022 00:00:00

Characteristics		Number of Deaths	Percentage
Total number of deaths		7,970	
Sex	Female	3,704	46.5
	Male	4,266	53.5
	Unknown	0	0.0
	M:F ratio	1.15	
Case classification*	Possible	266	3.3
	Probable	147	1.8
	Confirmed	7,557	94.8
Healthcare Worker	Yes	23	0.3
	No	5,752	72.2
	Unknown	2,195	27.5
Underlying Conditions	Yes	6,079	76.3
	No	796	10.0
	Unknown	1,095	13.7
ICU Admission	Yes	913	11.5
	No	7,057	88.5

Long COVID

- UK Office for National Statistics survey up to May, 2022 - 2 million people in the UK had self-reported long COVID.
- 72% reported having long COVID for at least 12 weeks / 42% at least 1 year / 19% for at least 2 years.
- Fatigue - most common symptom followed by breathlessness, cough, and muscle ache.
- Risk factors: female sex, obesity, middle age (35–65 years), living in areas of greater socioeconomic deprivation, and the presence of another activity-limiting health condition.

- Ballering et al Lancet 2022 - longitudinal cohort study - Netherlands between April, 2020, and August, 2021
- 24 repeated measurements in digital COVID-19 questionnaires.
- Patients were own control – pre and post COVID-19 infection & also matched with a COVID-19 negative control group.
- At least one core symptom of substantially increased severity to at least moderate was 21·4% (381 of 1782) in COVID-19-positive participants versus 8·7% (361 of 4130) in COVID-19-negative controls. Thus, this study found that core symptoms were attributed to COVID-19 in 12·7% of participants, or approximately one in eight.

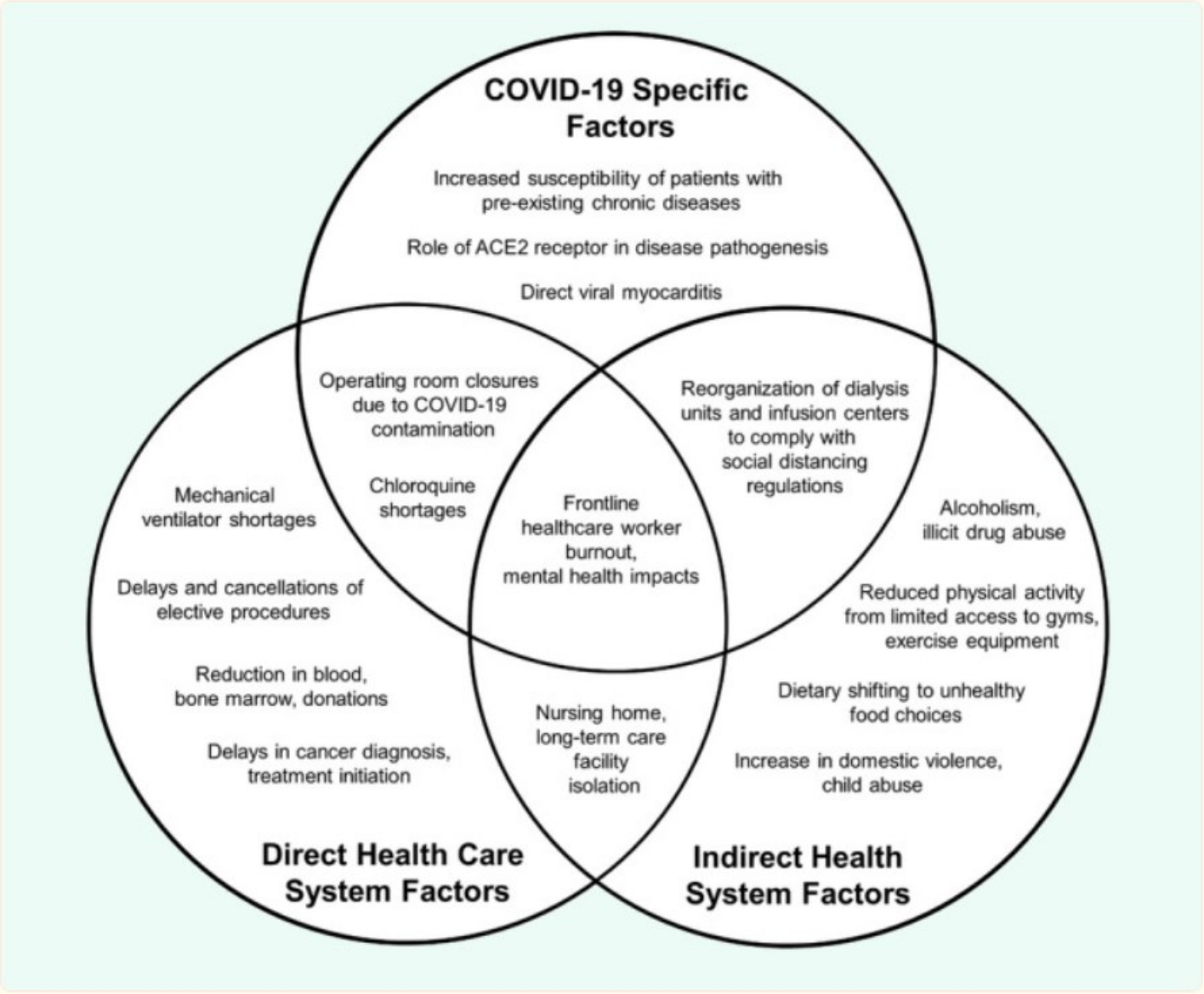
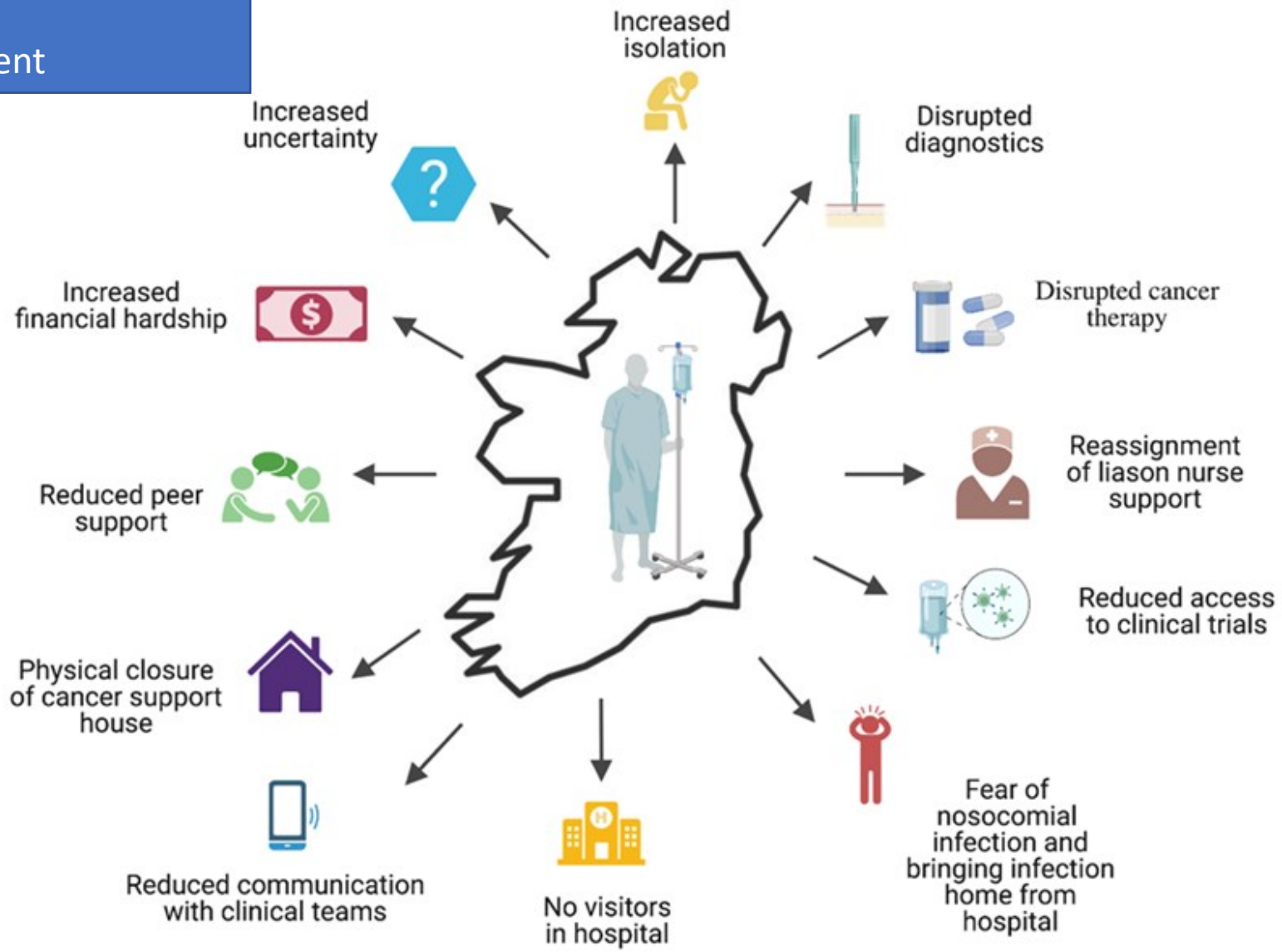


Fig. 1

Example impacts of COVID-19 on NCDs.

Impact on Cancer: Diagnosis and Treatment



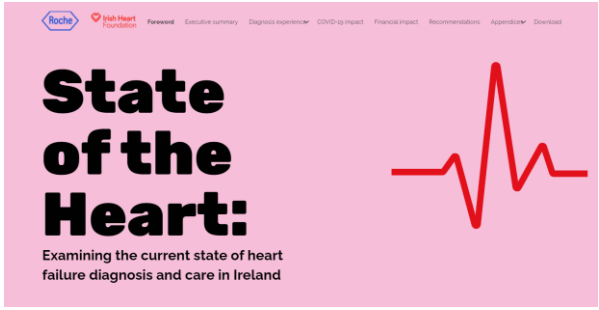
Average number of GP visits in the previous 12 months (by age)

ALL	15-24	25-34	35-44	45-54	55-64	65-74	75+
3.3	2.5	2.9	2.8	3.8	4.0	4.2	4.2

2019 : Average number of GP visits

4.5	3.1	4.2	3.5	4.1	4.9	6.2	8.8

Cardiovascular disease

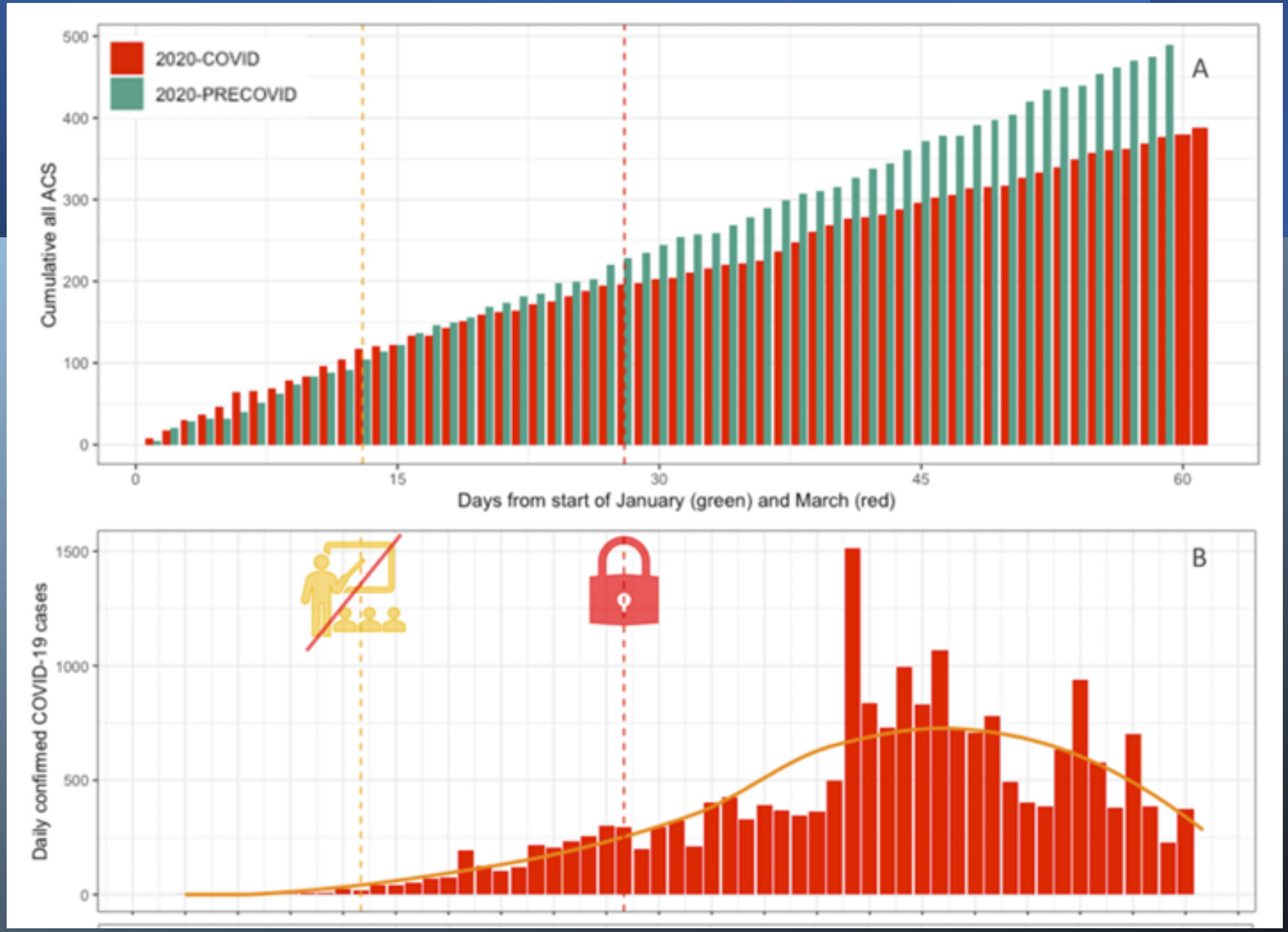


- 28% cancelled appointment / 39% avoided doctor
- 34% had appointment cancelled / 72% in >50 year olds
- 42% difficulty getting prescriptions

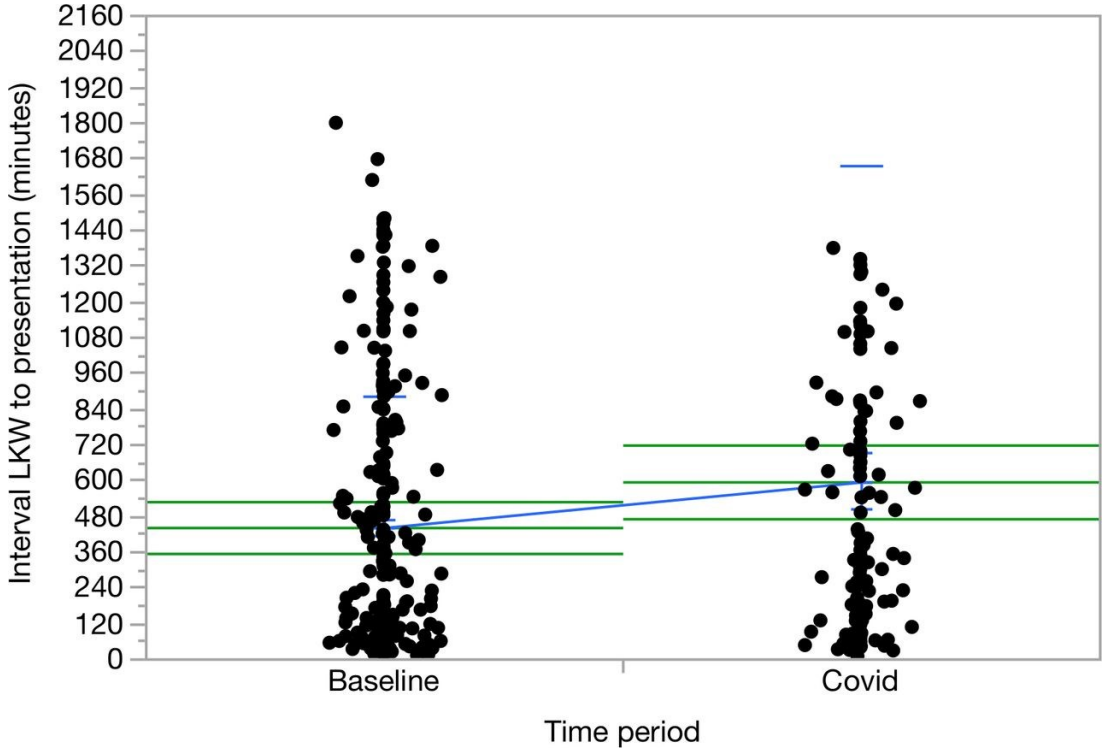
49% of COVID-19 related ICU admissions in Ireland were patients with chronic heart disease[11]

The first wave of COVID-19 was associated with decreases and delays in acute care presentations for myocardial infarction in the United States and Europe, which will likely have implications for increased disease severity, mortality and postinfarct complications such as heart failure.

Bhatt et al. Declines in hospitalizations for acute cardiovascular conditions during the COVID-19 pandemic: a multicenter tertiary care experience. *J Am College Cardiol* 2020; 76: 280–8.



Connolly NP, Simpkin A, Mylotte D, et al. Impact on percutaneous coronary intervention for acute coronary syndromes during the COVID-19 outbreak in a non- overwhelmed European healthcare system: COVID-19 ACS- PCI experience in Ireland. BMJ Open 2021;11:e045590. doi:10.1136/bmjopen-2020-045590



Time interval between last-known-well time (LKW) and arrival at the stroke center (minutes).

Clemens M Schirmer et al. J NeuroIntervent Surg 2020;12:639-642

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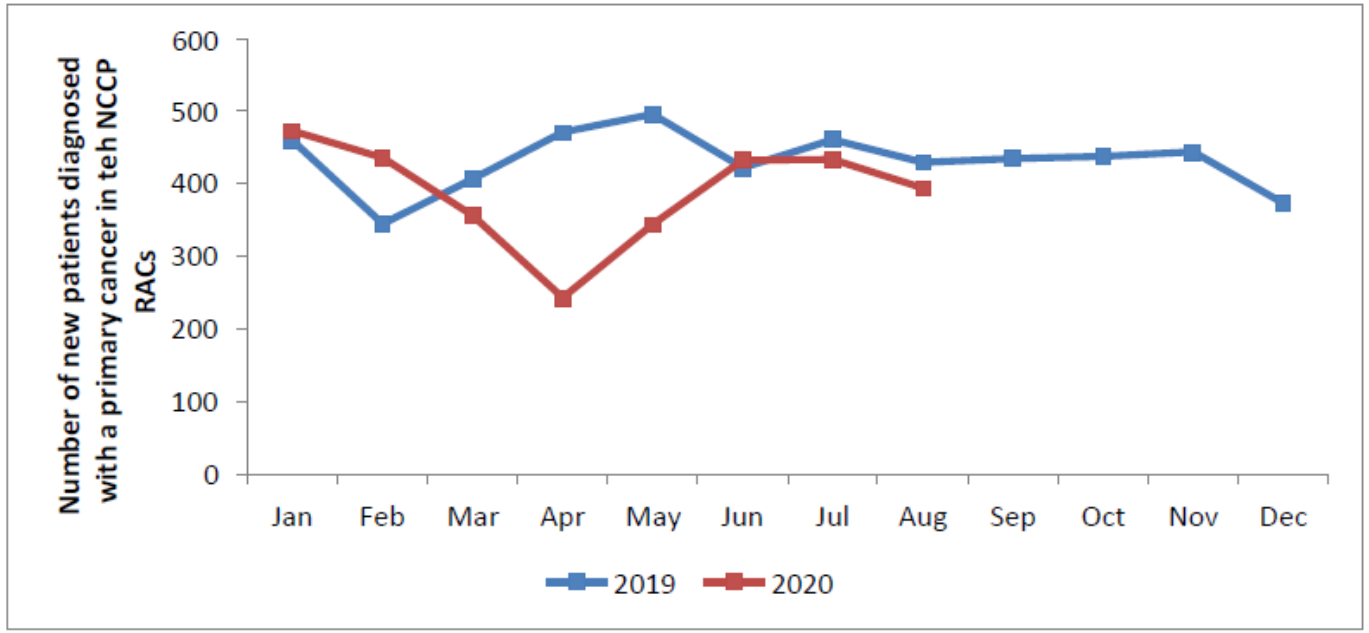
Rank	Reason for Delay	Studies (n=40)
1	Shelter-in-place advisories and/or patient fear of presentation	23 (59.0%)
2	Stressed hospital systems and/or EMS	13 (33.3%)
3	COVID-19 symptom screening	13 (33.3%)
4	Additional PPE requirements	12 (30.8%)
5	Additional isolation policies within hospital	10 (25.6%)

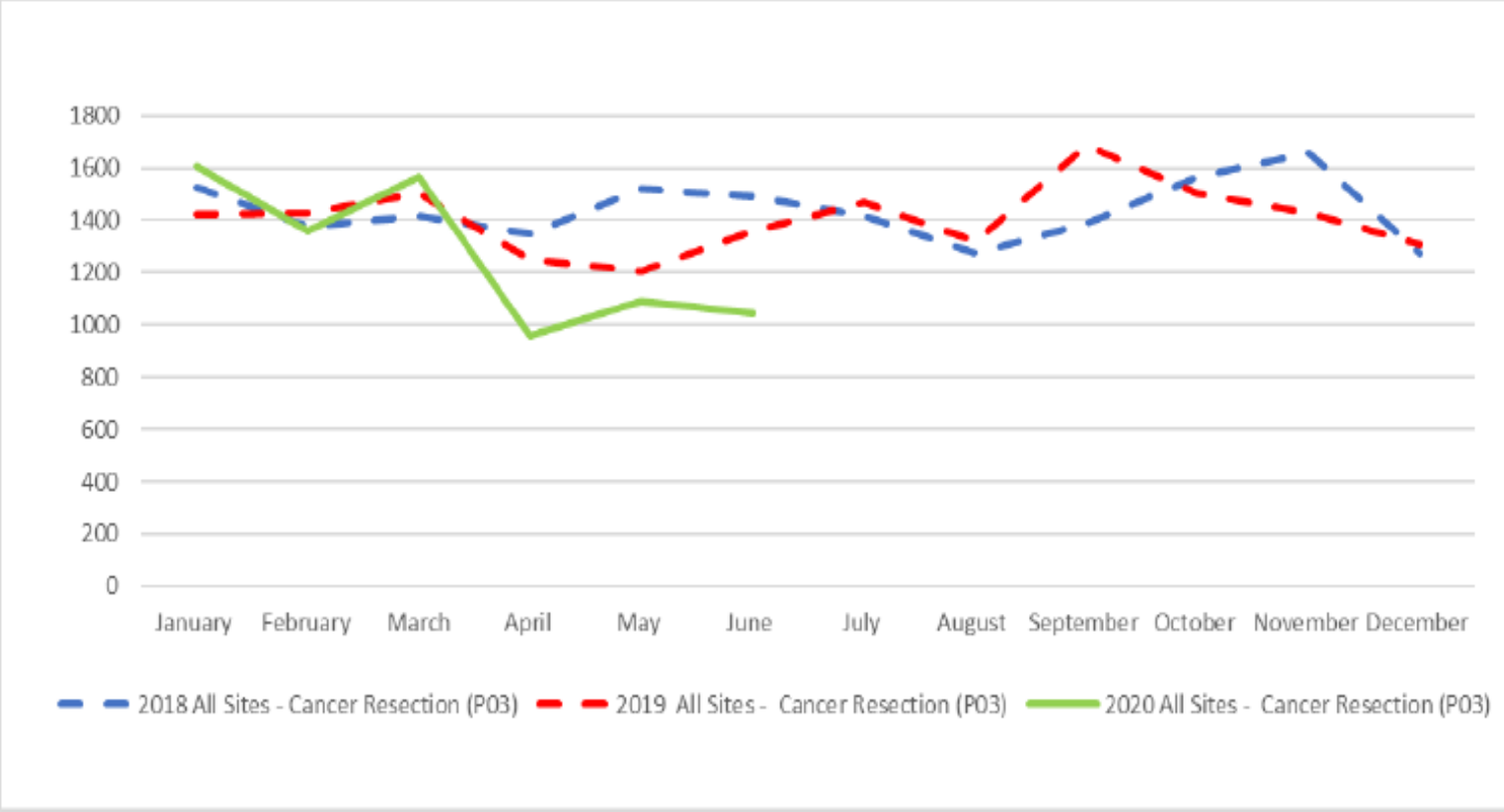
Nawabi NLA, Duey AH, Kilgallon JL, et alEffects of the COVID-19 pandemic on stroke response times: a systematic review and meta-analysisJournal of NeuroInterventional Surgery 2022;14:642-649.

Figure 3. Number of new patients that are subsequently diagnosed with a primary cancer, following attendance at one of the three rapid access clinics, 2019 and 2020



RCPI. Deploying Data-Driven Intelligence to measure the impact of COVID-19 on cancer care and cancer patients. December 2020

Figure 7: P03 – Cancer Resection comparison of all sites, 2018-2020



RCPI. Deploying Data-Driven Intelligence to measure the impact of COVID-19 on cancer care and cancer patients. December 2020

Reductions in some surgical oncology procedures of up to 39%.

Over year to April 2021

- 15% fall in procedural waiting list numbers
- sharp drop-in outpatient activity, contrasting with
- 60% increase in patients waiting more than 12 months for treatment because of the equally sharp drop-in theatre activity.

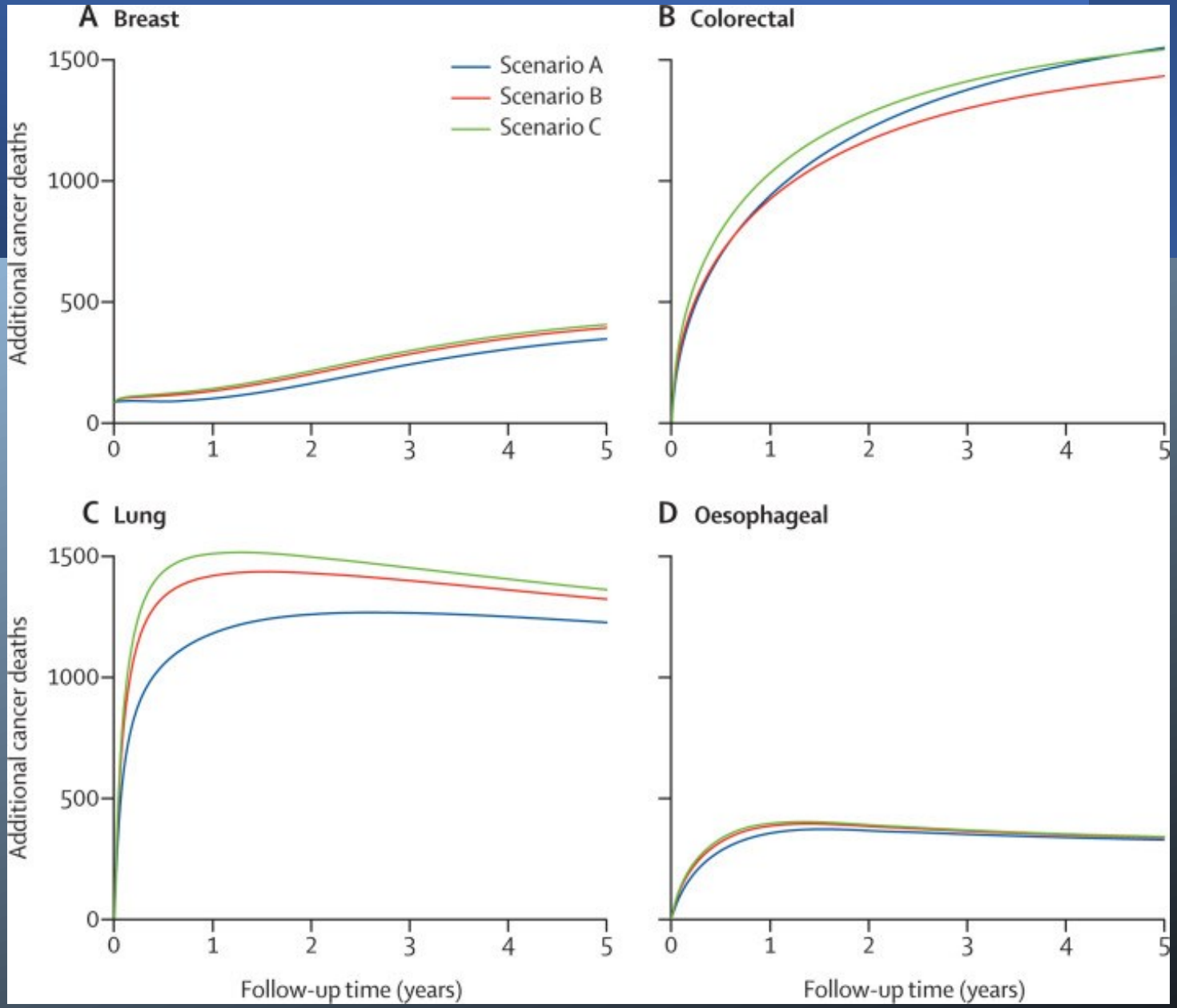
- The initial marked reductions in activities observed from March to June 2020 however were not replicated during the subsequent wave.

Radiation Oncology

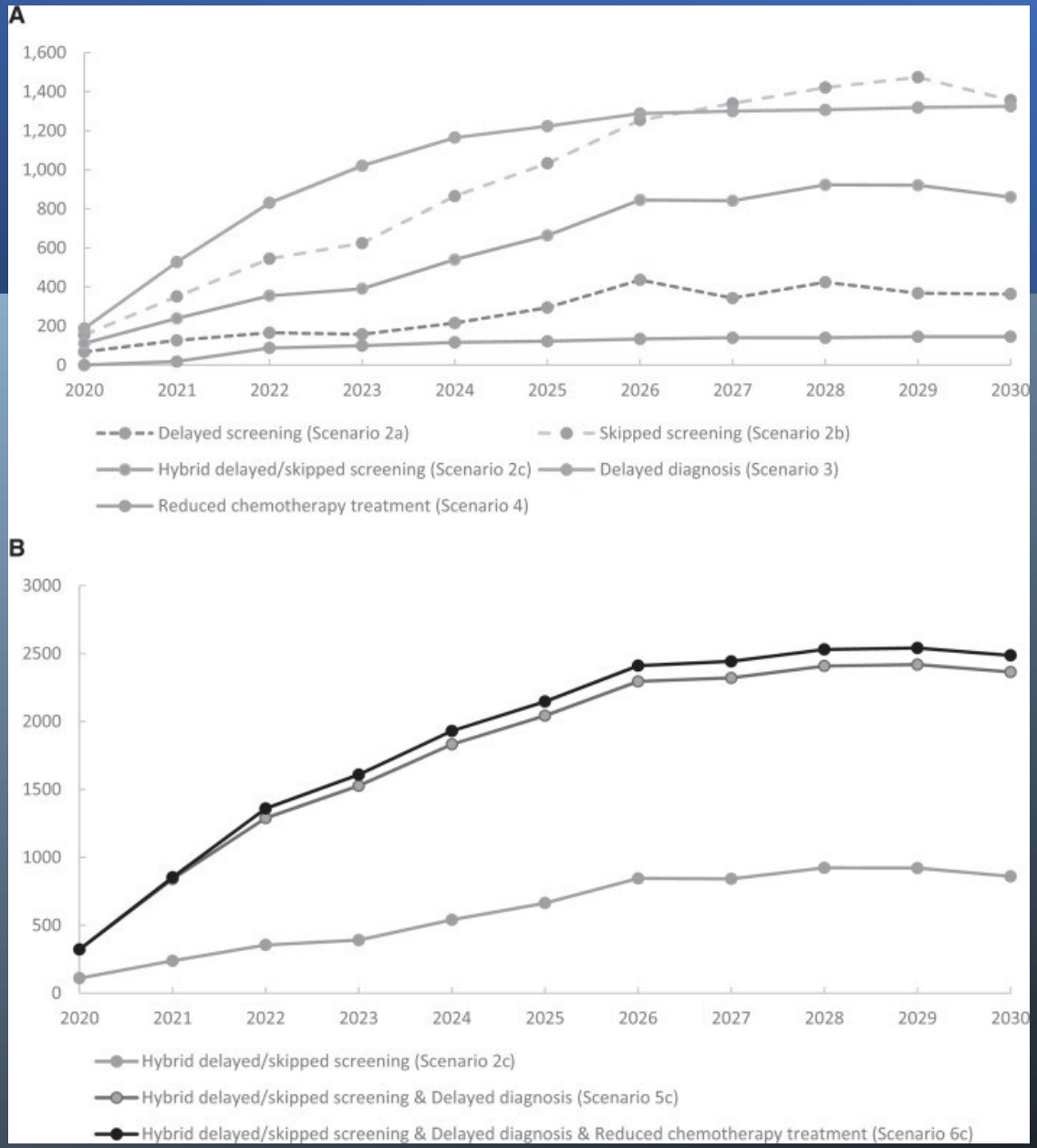
RCPI. Deploying Data-Driven Intelligence to measure the impact of COVID-19 on cancer care and cancer patients. December 2020

Prioritisation of service provision shifted rapidly to focus on the delivery of radiation to patients treated with curative intent and those in need of emergency treatment

International tumour site-specific guidelines were rapidly published with consensus recommendations on how to modify schedules and prioritise treatment delivery in the COVID-19 era



Maringe et al
Lancet Oncol. 2020 Aug;21(8):1023-1034.

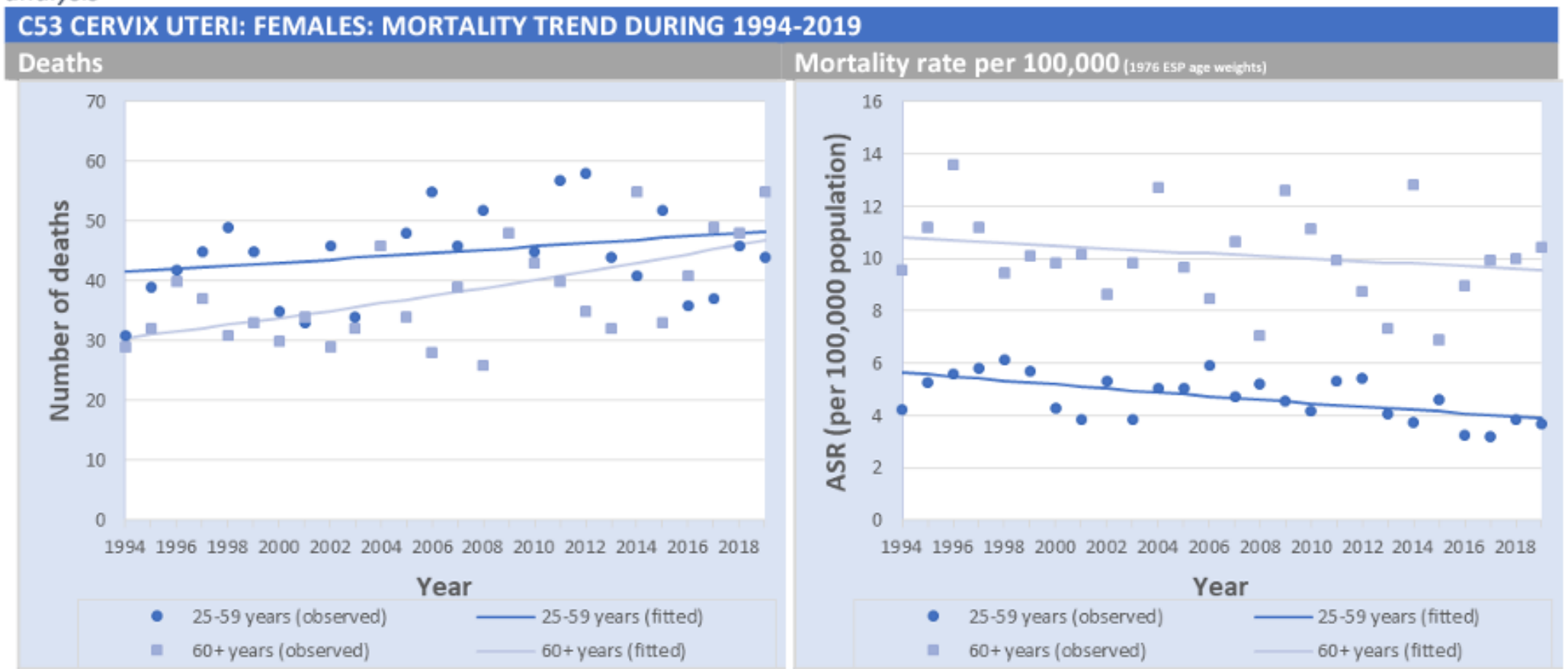


Alagoz et al. J Natl Cancer Inst. 2021 Nov 2;113(11):1484-1494. doi: 10.1093/jnci/djab097.

CervicalCheck
AN CLÁR NÁISIÚNTA SCAGTHÁSTÁLA CEIRBHEACS
IRELAND'S NATIONAL CERVICAL SCREENING PROGRAMME

National Cancer Registry Ireland. Breast, cervical and colorectal cancer 1994-2019: National trends for cancers with population-based screening programmes in Ireland September 2022

Figure 16. Trends in cervical cancer deaths and age-standardised mortality rates, by age group, 1994-2019, based on joinpoint analysis[7]

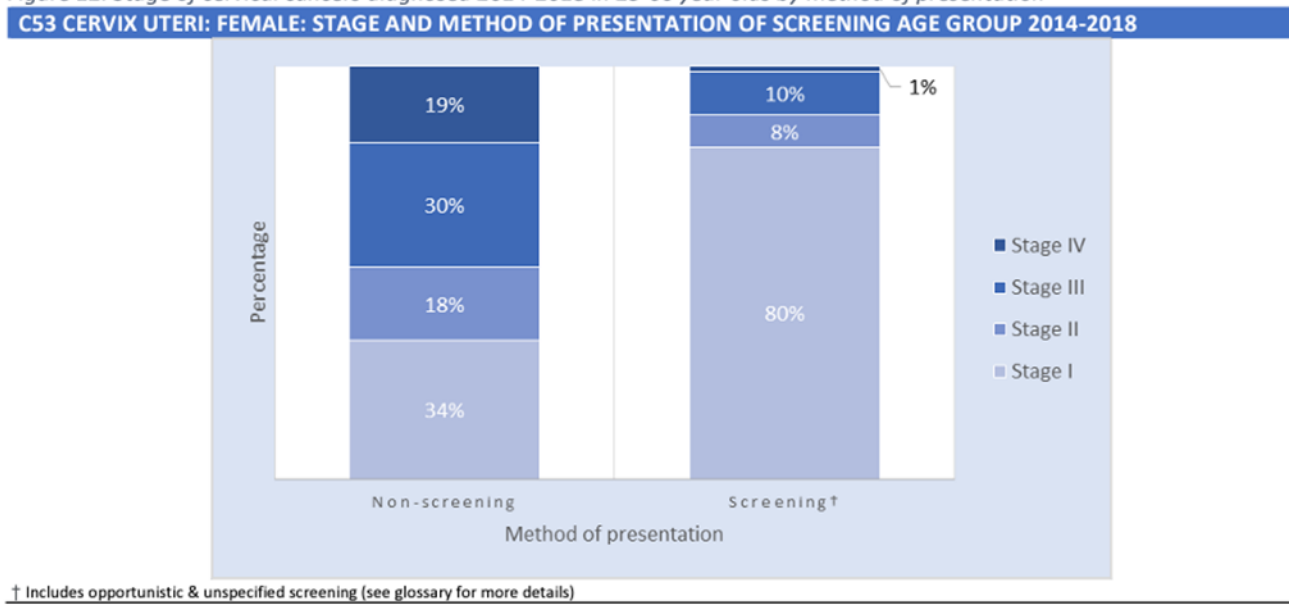


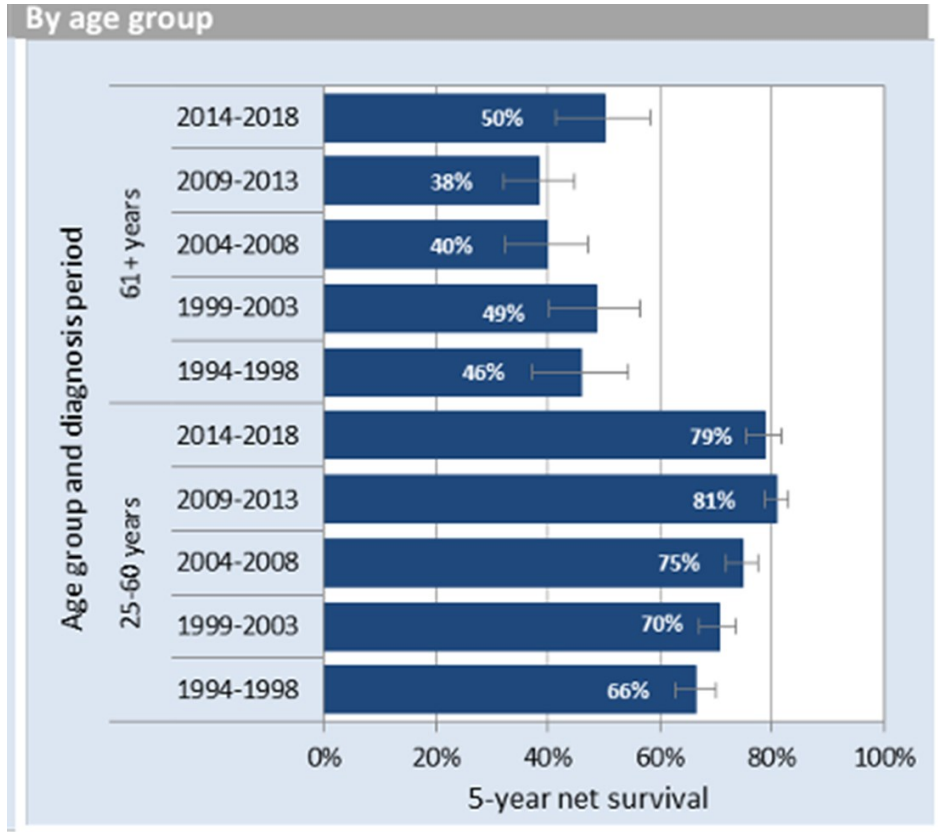
Age group	from-to	apc	ci	trend
25-59 years	1994-2019	0.6	[-0.3,1.5]	↔
60+ years	1994-2019	1.7	[0.8,2.7]	↑

Age group	from-to	apc	ci	trend
25-59 years	1994-2019	-1.5	[-2.3,-0.6]	↓
60+ years	1994-2019	-0.5	[-1.4,0.4]	↔

from-to=range of years; **apc** =annual percentage change over range (%); **ci** =95% confidence intervals of **apc** for each distinct range;
trend: ↑=significant increase, ↓=significant decrease, ↔ =no change, at the 95% level

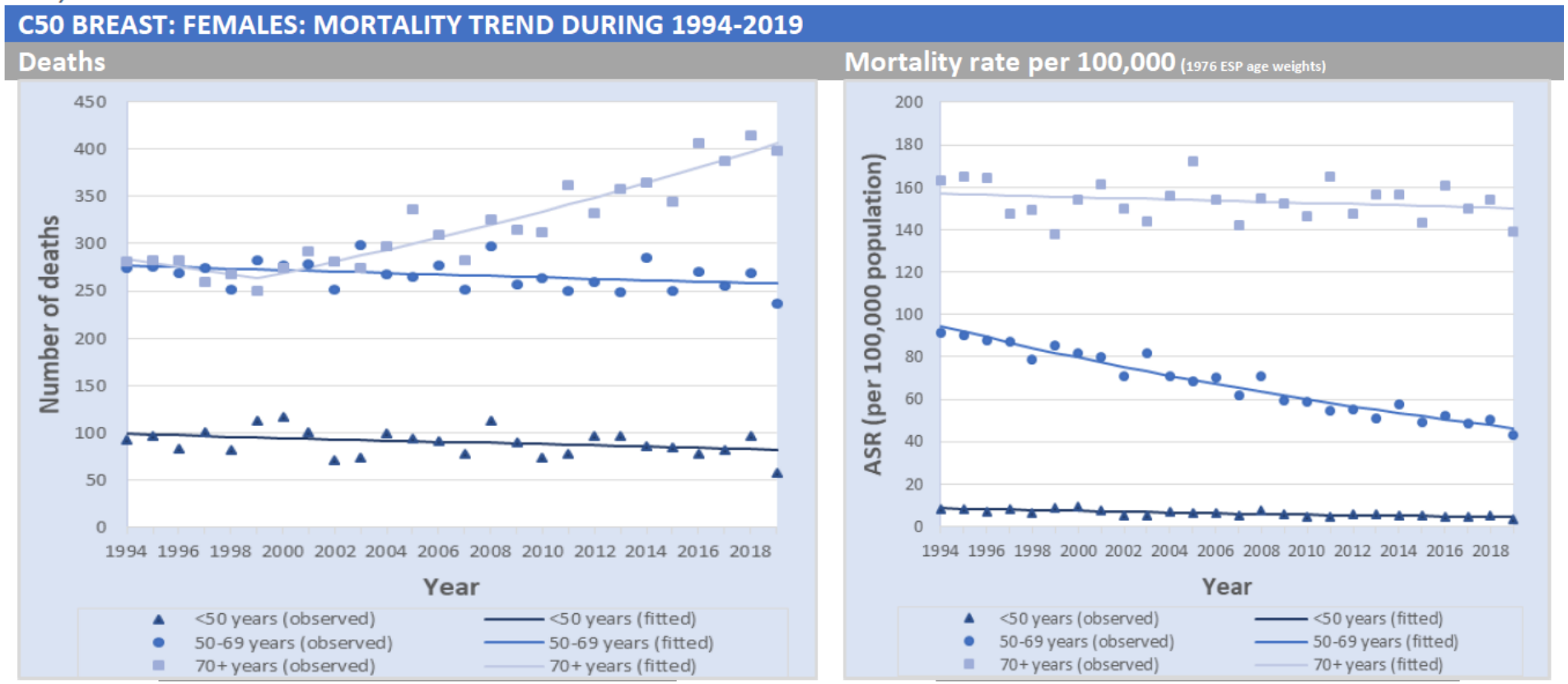
Figure 12. Stage of cervical cancers diagnosed 2014-2018 in 25-60 year olds by method of presentation





National Cancer Registry Ireland. Breast, cervical and colorectal cancer 1994-2019: National trends for cancers with population-based screening programmes in Ireland September 2022

Figure 8. Trends in breast cancer deaths and age-standardised mortality rates, by age group, 1994-2019, based on joinpoint analysis[7]

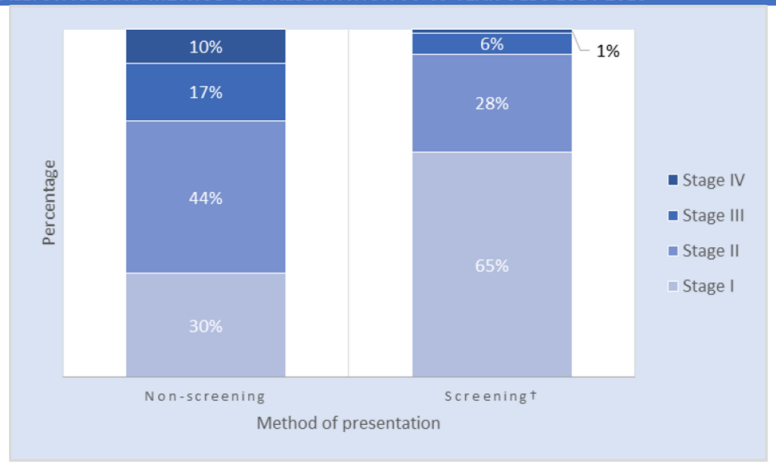


Age group	from-to	apc	ci	trend
<50 years	1994-2019	-0.7	[-1.5,0.1]	↔
50-69 years	1994-2019	-0.3	[-0.6,0.0]	↔
70+ years	1994-1999	-1.5	[-5.1,2.3]	↔
	1999-2019	2.2	[1.8,2.6]	↑

Age group	from-to	apc	ci	trend
<50 years	1994-2019	-2.7	[-3.5,-1.9]	↓
50-69 years	1994-2019	-2.8	[-3.1,-2.5]	↓
70+ years	1994-2019	-0.2	[-0.5,0.1]	↔

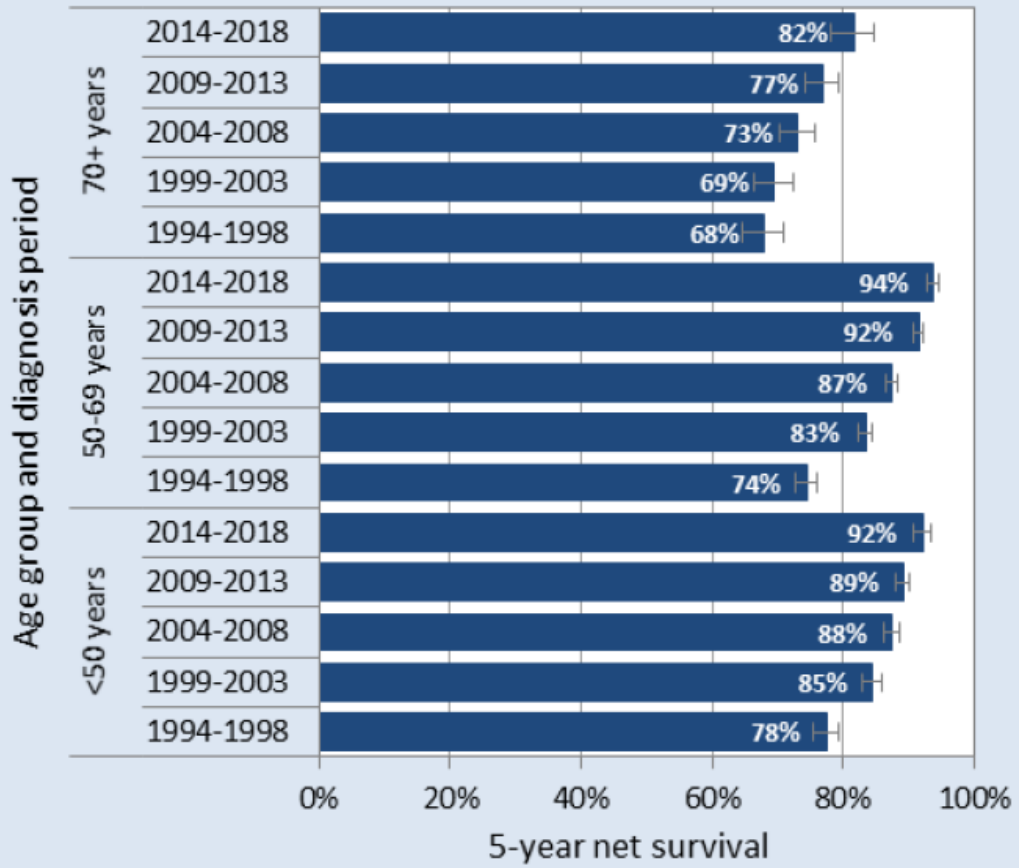
Figure 4. Stage of breast cancers diagnosed 2014-2018 in 50-69 year olds by method of presentation

C50 BREAST: FEMALE: STAGE AND METHOD OF PRESENTATION 50-69 YEAR OLDS 2014-2018



† Includes opportunistic & unspecified screening (see glossary for more details)

By age group



BowelScreen
An Clár Náisiúnta Scagthástála Putóige
The National Bowel Screening Programme

gure 20. Stage of colorectal cancers diagnosed 2014-2018 in 60-69 year olds by sex and method of presentation

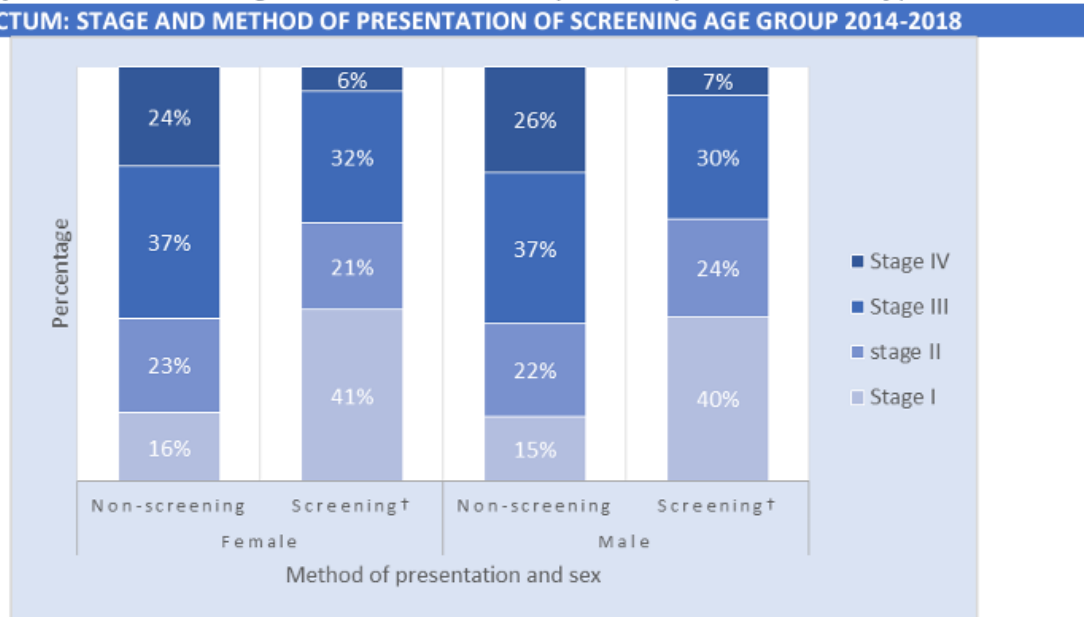
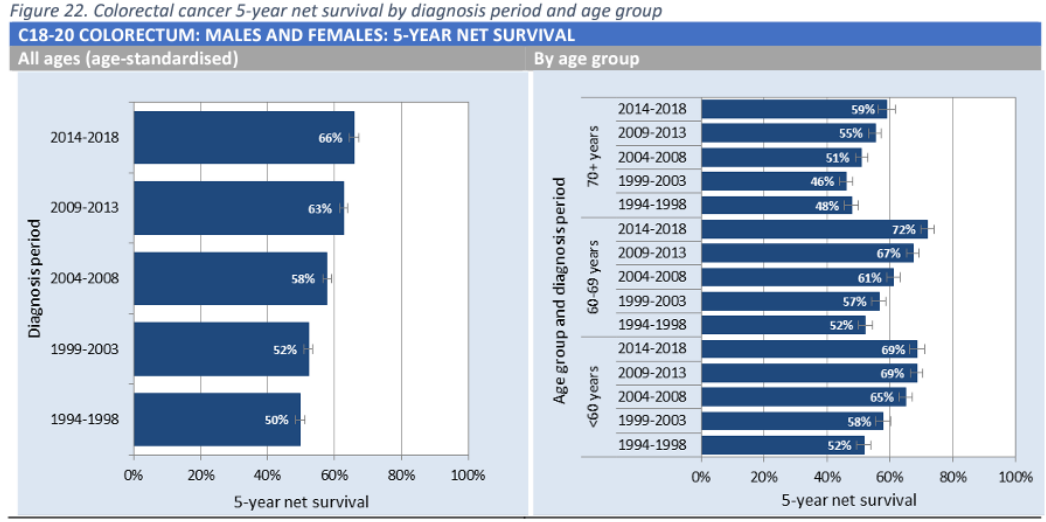
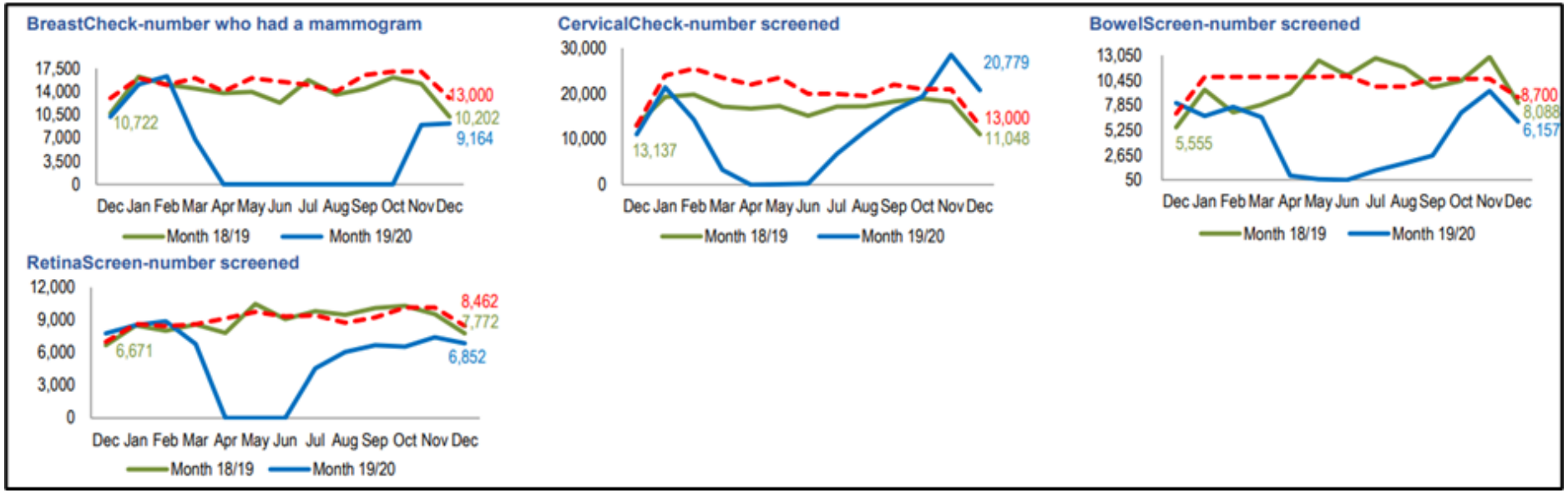
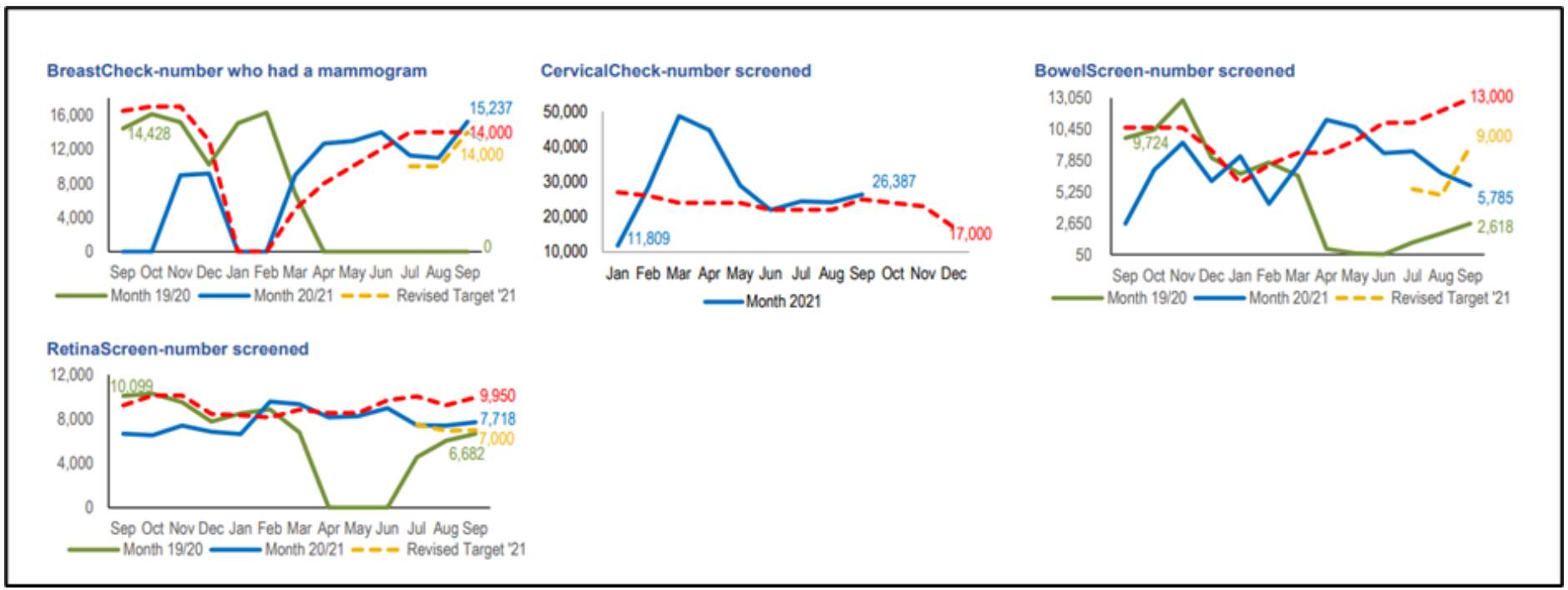


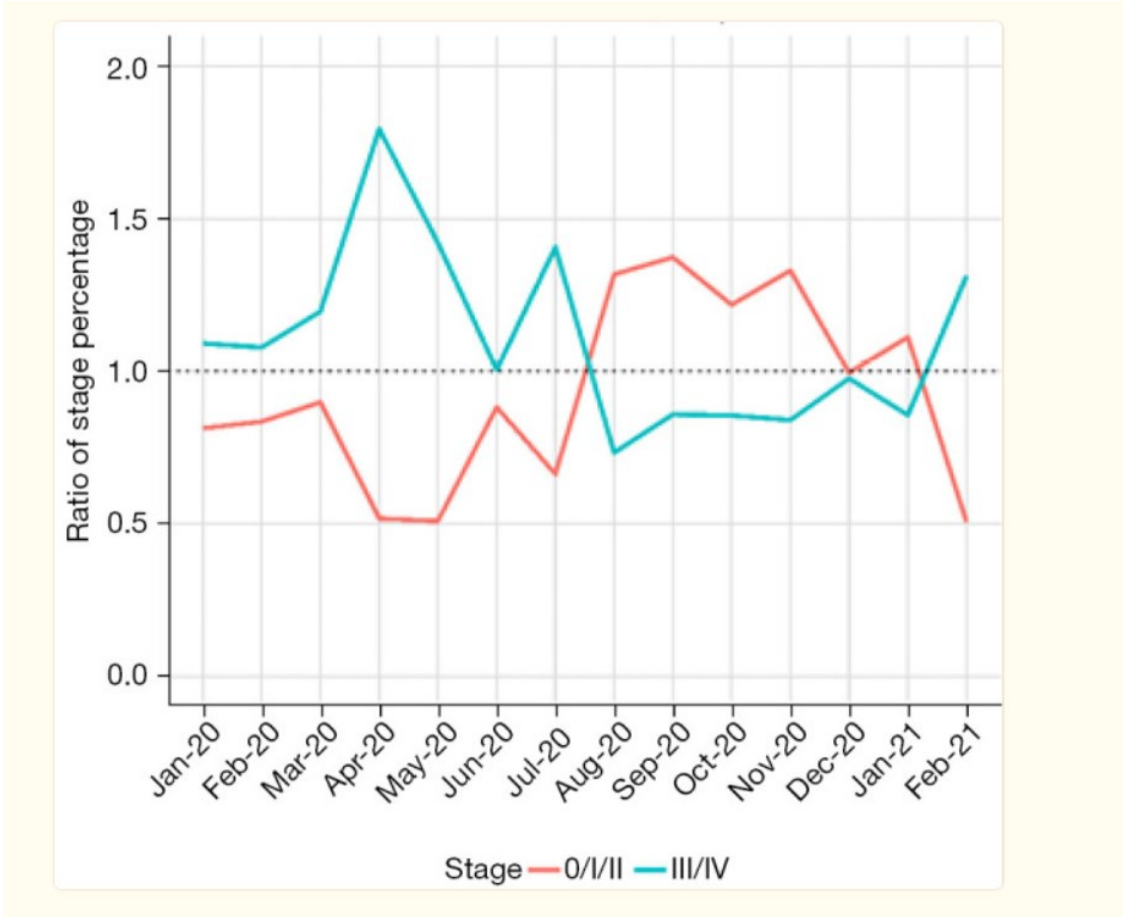
Figure 22. Colorectal cancer 5-year net survival by diagnosis period and age group




BreastCheck-number who had a mammogram
17,500
14,000
10,500
7,000
3,500
0
10,722
13,000
10,202
9,164
Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month 18/19
Month 19/20
CervicalCheck-number screened
30,000
20,000
10,000
0
13,137
20,779
13,000
11,048
Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month 18/19
Month 19/20
BowelScreen-number screened
13,050
10,450
7,850
5,250
2,650
50
5,555
8,700
8,088
6,157
Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month 18/19
Month 19/20
RetinaScreen-number screened
12,000
9,000
6,000
3,000
0
6,671
8,462
7,772
6,852
Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month 18/19
Month 19/20


BreastCheck-number who had a mammogram
16,000
12,000
8,000
4,000
0
14,428
15,237
14,000
14,000
0
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
Month 19/20
Month 20/21
Revised Target '21
CervicalCheck-number screened
50,000
40,000
30,000
20,000
10,000
11,809
26,387
17,000
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month 2021
BowelScreen-number screened
13,050
10,450
7,850
5,250
2,650
50
9,724
13,000
9,000
5,785
2,618
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
Month 19/20
Month 20/21
Revised Target '21
RetinaScreen-number screened
12,000
8,000
4,000
0
10,099
9,950
7,718
7,000
6,682
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
Month 19/20
Month 20/21
Revised Target '21

Delayed presentation - Stage shift



Transl Lung Cancer Res. 2022 Jul; 11(7): 1514–1516.
doi: 10.21037/tlcr-22-191
PMCID: PMC9359952
PMID: 35958333

Shift in lung cancer stage at diagnosis during the COVID-19 pandemic in New York City

Raja Flores, [1] Naomi Alpert, [2] Ken McCardle, [2] and Emanuela Taioli[✉] [1,2]

Transl Lung Cancer

Infectious Disease: TB

Longer durations of infectiousness

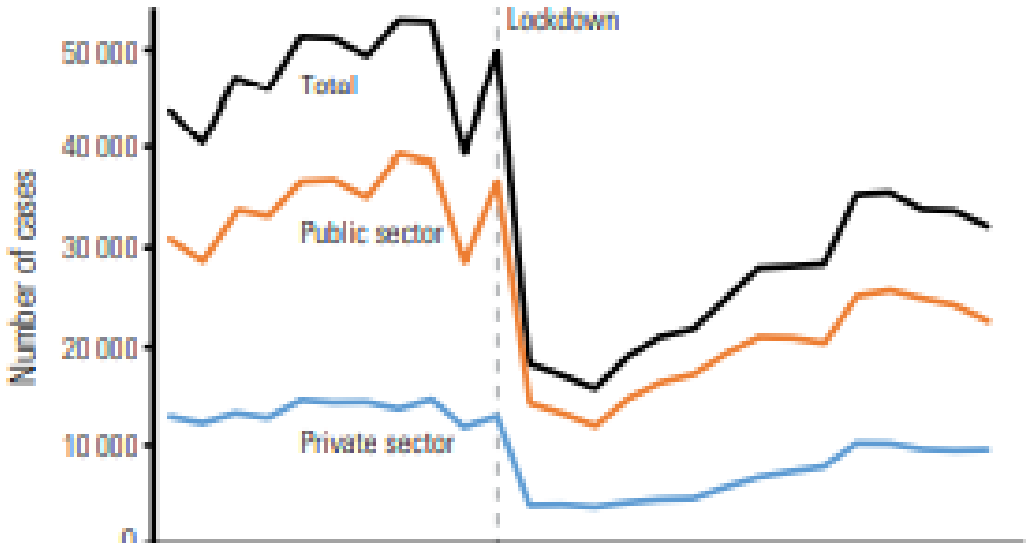
Increased household exposure to TB infection

Worsening treatment outcomes

Stop TB Partnership study - pandemic could cause an additional 6.3 million TB cases globally between 2020 and 2025

Social distancing / Masks

Trends in weekly TB case notifications in India in 2020, before and after lockdown



Morbidity and Mortality Weekly Report (*MMWR*)

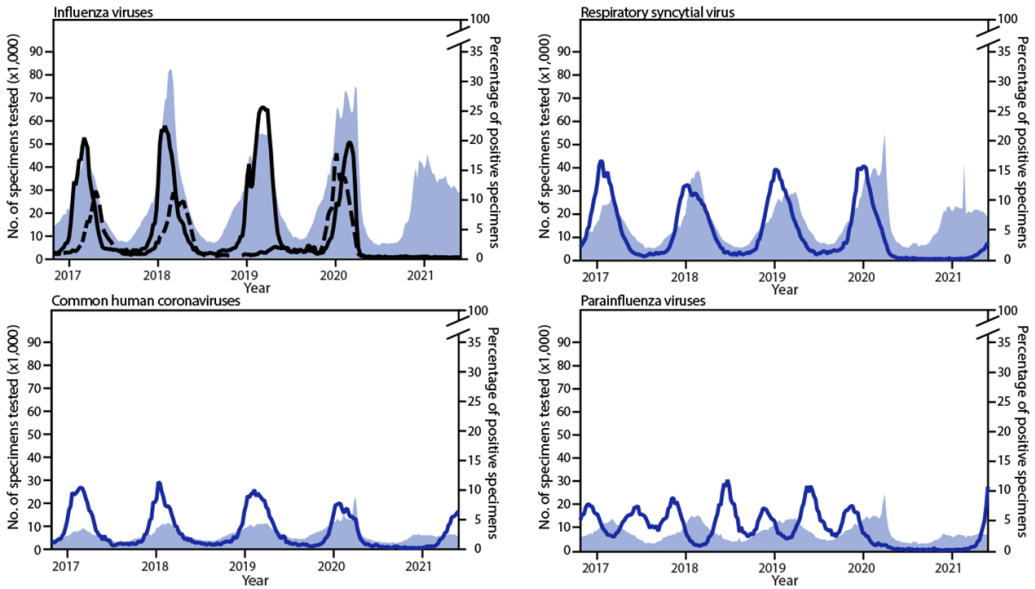
CDC

Changes in Influenza and Other Respiratory Virus Activity During the COVID-19 Pandemic — United States, 2020–2021

Weekly / July 23, 2021 / 70(29);1013–1019

Sonja J. Olsen, PhD[1]; Amber K. Winn, MPH[2]; Alicia P. Budd, MPH[1]; Mila M. Prill, MSPH[2]; John Steel, PhD[1]; Claire M. Midgley, PhD[2]; Krista Kniss, MPH[1]; Erin Burns[1];

FIGURE 1. Number of specimens tested and the percentage of positive tests for influenza viruses, respiratory syncytial virus, common human coronaviruses, parainfluenza viruses, human metapneumovirus, respiratory adenoviruses, and rhinoviruses/enteroviruses, by year — United States, 2016–2021



Mental Health

- UK Household Longitudinal Study
- Previous participants took survey again in April 23–30, 2020
- Population prevalence of clinically significant levels of mental distress rose from 18·9% (95% CI 17·8–20·0) in 2018–19 to 27·3% (26·3–28·2) in April, 2020
- Increases greatest in 18-24 year olds, 25-34 year olds, women and people with young children

Pierce et al. Mental health before and during the COVID-19 pandemic: a longitudinal probability sample survey of the UK population. Lancet Psychiatry. 2020 Oct;7(10):883-892. doi: 10.1016/S2215-0366(20)30308-4. PMID: 32707037.

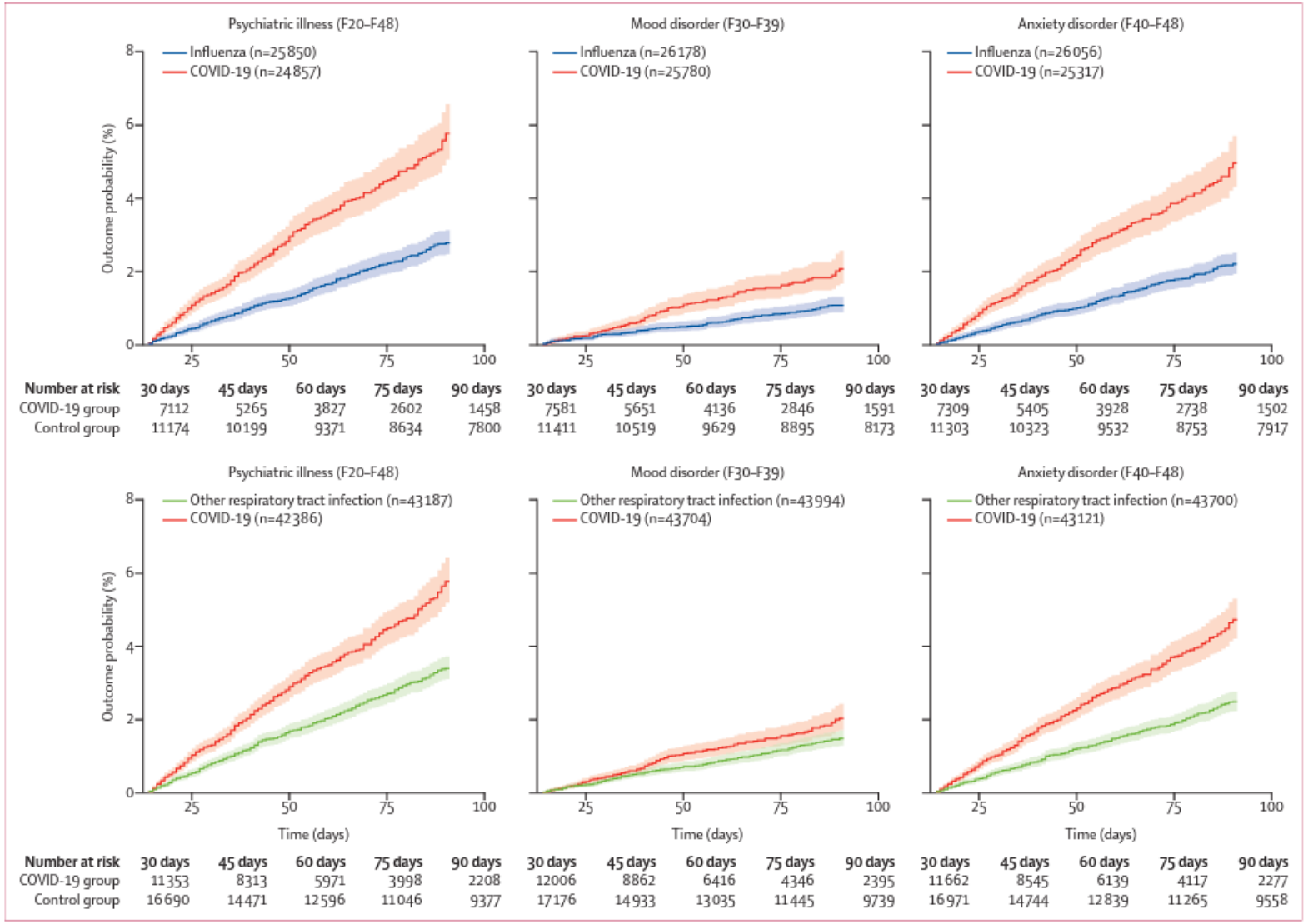


Figure 1: **Kaplan-Meier curves for onset of first psychiatric diagnoses after COVID-19 diagnosis compared with influenza and other respiratory tract infections**
Curves for the other control health events are presented in the appendix (p 23). Shaded areas represent 95% CIs. The number of subjects within each cohort corresponds to all those who did not have the outcome before the follow-up period.

Taquet et al. Bidirectional associations of COVID-19 and psychiatric disorder : retrospective cohort studies of 62354 COVID-19 cases in the USA. Lancet Psychiatry 2021;8;130-40

An Phríomh-Oifig Staidrimh
Central Statistics Office

Social Impact of COVID-19 Survey
April 2020

12.1%
rated their Overall Life Satisfaction as 'High'
compared to:
44.2.% in **2018**
31.1% in **2013**

41.9%
rated their Satisfaction with Personal Relationships 'High'
compared to
59.7.% in **2018**
60.0% in **2013**

% of respondents whose **Consumption has increased or decreased since introduction of restrictions***

Alcohol Consumption	Tobacco Consumption	Frequency of Exercise	Junk Food and Sweets	Time spent watching TV	Time spent on the Internet
up **22.2%**	up **30.5%**	up **37.1%**	up **45.4%**	up **44.3%**	up **59.1%**
down **17.2%**	down **8.6%**	down **33.2%**	down **12.3%**	down **9.2%**	down **2.8%**

*of those that already partake in the behaviour

% of respondents **Concerned about household stress from confinement**

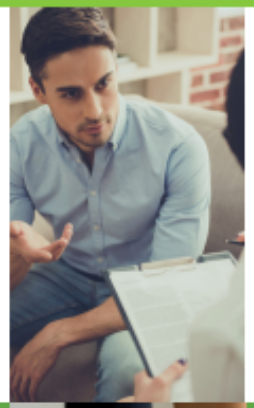
Not at all	Somewhat	Very
23.2%	**59.6%**	**17.3%**

26.6%
reported **Feeling lonely 'All/most/some of the time'**
compared to **16.9%** in **2018**

37.5%
have been **Negatively financially impacted**
by COVID-19

Due to a processing error, the 2013, 2018 and April 2020 values for the Low, Medium and High satisfaction indicators were incorrectly reported. This has been corrected as of 11.00 on 13/10/21.

Health Behaviours During the Covid-19 Pandemic



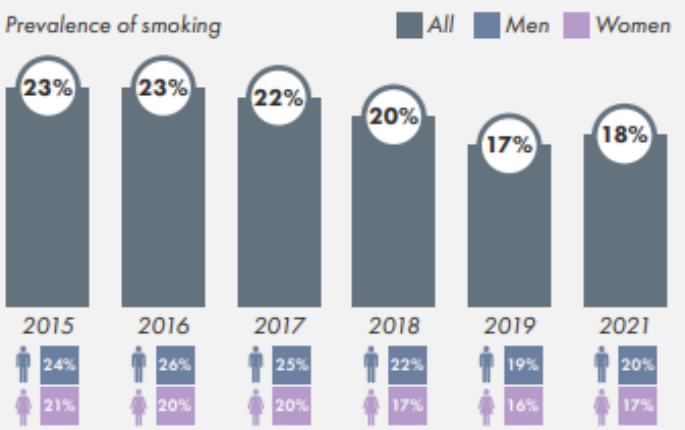
51%
drink more, smoke more, have gained weight or report a worsening in their mental health

29%
have gained weight

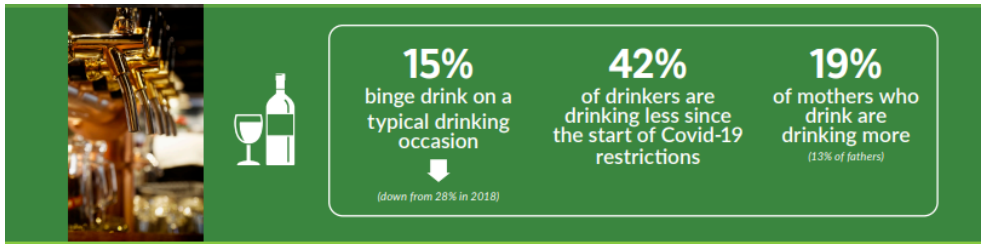
30%
report a worsening of their mental health

Prevalence of Smoking

- 18% of the population are current smokers, a decline of 5 percentage points since the first wave of this survey in 2015. 16% smoke daily and 2% smoke occasionally.



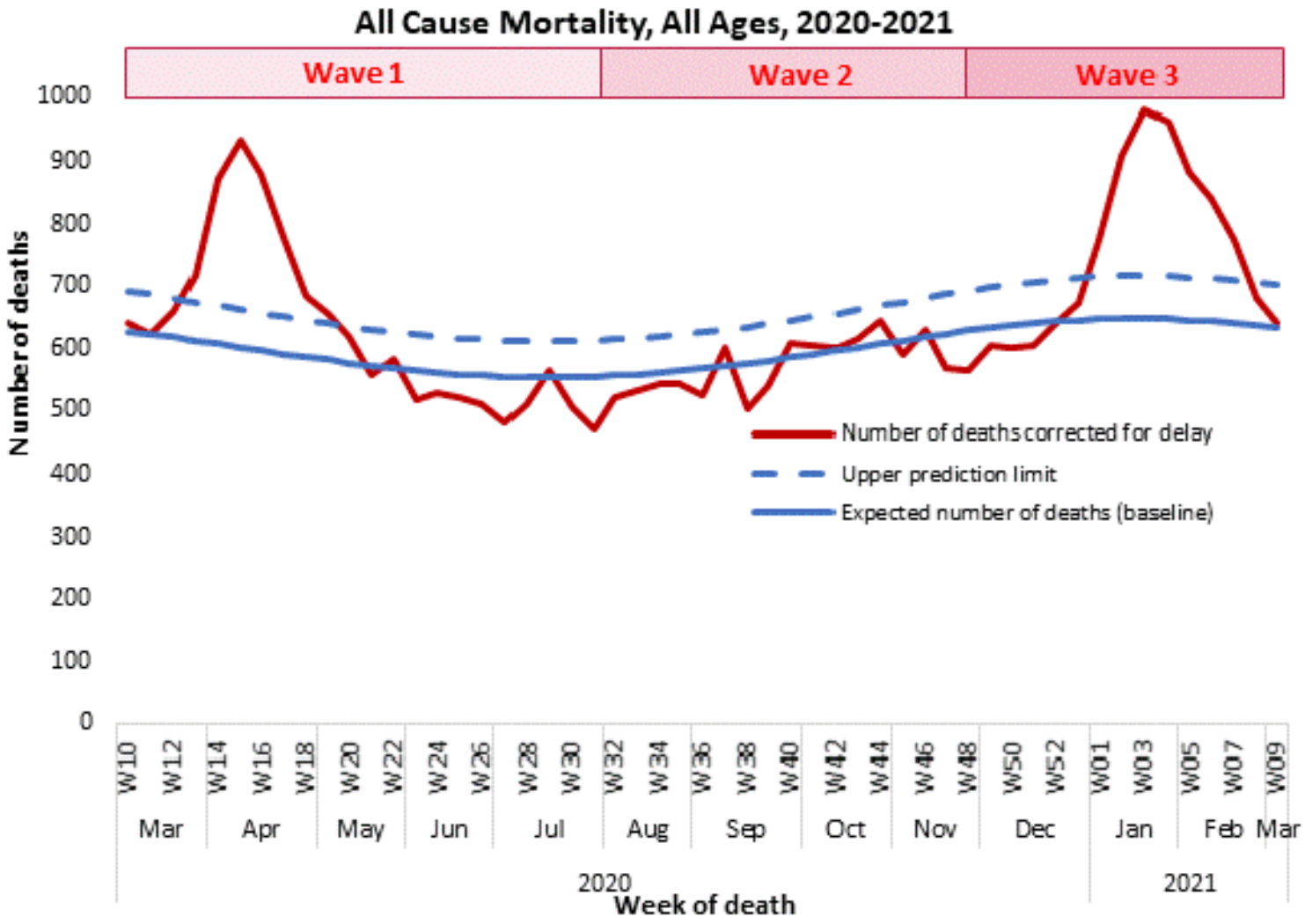
- For the first time, 45 to 54 year olds (24%) are the most likely age group to smoke, with an increase of 6 percentage points since 2019. Rates of smoking among 25 to 34 year olds (20%) - the age group with the highest prevalence of smoking in each previous survey - have declined by 6 percentage points since 2019.



HPSC.

First year of the COVID-19 pandemic in Ireland

May 2022



COVID-19: a need for real-time monitoring of weekly excess deaths

The first-line epidemiological response to coronavirus disease 2019 (COVID-19) requires estimation of key parameters, including case fatality risk, and reproduction number, to monitor and predict the probable course of the pandemic. The challenge for public health scientists is that these data are partly a function of testing coverage.

The number of deaths attributed to COVID-19 is problematic because the criteria for defining a death almost certainly depends on whether the death occurs in somebody who tested positive for severe acute respiratory syndrome coronavirus 2. Furthermore, an unknown fraction of the cases classified as COVID-19 deaths had underlying health conditions and were probably already at an increased risk of death. Although some countries tend to attribute to COVID-19 most deaths of people who had the virus, others might tend to register other causes of death in the presence of major chronic diseases, even if the deceased person

As the pandemic progresses, consistent measurement of its scale, across time and space, should be a priority. Objective and comparable data are crucial to determine the effectiveness of different national strategies used to mitigate and suppress, and thus to better prepare for the probable continuation of, the

experience of previous non-pandemic years. This approach allows for the assessment of the total mortality effects of the pandemic in different places. Crucially, the counts would be of deaths by all causes combined, thus side-stepping issues of what is or is not a death attributable to COVID-19. Unfortunately, most countries do not publish such statistics, and those countries that do typically do, do so with considerable delay.

We therefore urge all national authorities who can collate counts of weekly deaths to expedite the publication of these data and place them in the public domain. The dissemination of this information should be done within 3–4 weeks of the period of observation. At a minimum, tabulations by sex and 5-year age groups are essential. Where not already in the public domain, countries should also release the equivalent weekly data for every calendar year from 2010, for calculation of excess deaths in 2020.

LS reports grants from Wellcome, the Medical Research Council, the National Institute for Health Research, GlaxoSmithKline, the British Heart Foundation, and Diabetes UK. LS is also a trustee of the British Heart Foundation. All other authors declare no competing interests.

*David A Leon, Vladimir M Shkolnikov, Liam Smeeth, Per Magnus, Markéta Pechholdová, Christopher I Jarvis
david.leon@lshtm.ac.uk

London School of Hygiene & Tropical Medicine, London WC1E 7HT, UK (DAL, LS, CIJ); Max Planck Institute for Demographic Research, Rostock, Germany (VMS); Centre for Fertility and Health, Norwegian Institute of Public Health, Oslo, Norway

The number of deaths attributed to COVID-19 is problematic because the criteria for defining a death almost certainly depends on whether the death occurs in somebody who tested positive for severe acute respiratory syndrome coronavirus 2. Furthermore, an unknown fraction of the cases classified as COVID-19 deaths had underlying health conditions and were probably already at an increased risk of death. Although some countries tend to attribute to COVID-19 most deaths of people who had the virus, others might tend to register other causes of death in the presence of major chronic diseases, even if the deceased person had COVID-19.

- What is being included in reporting of deaths?
England - hospital deaths only included in death figures until 29 April 2020 - the UK fatality figure rose by 4,419 after non-hospital deaths positive for SARS-COV-2 were included (included 3,811 deaths in care homes and the community going back to early March 2020).

- France 2020 including hospital and nursing homes but not deaths in the community

Nature Public Health Emergency Collection
Public Health Emergency COVID-19 Initiative

Ir J Med Sci. 2021; 190(2): 483–484.
Published online 2020 Sep 21. doi: 10.1007/s11845-020-02370-9
PMCID: PMC7502653
PMID: 32955699

The challenges of international comparisons of COVID-19

Patricia Fitzpatrick

Nature Public Healt

Findings Although reported COVID-19 deaths between Jan 1, 2020, and Dec 31, 2021, totalled 5·94 million worldwide, we estimate that 18·2 million (95% uncertainty interval 17·1–19·6) people died worldwide because of the COVID-19 pandemic (as measured by excess mortality) over that period. The global all-age rate of excess mortality due to the COVID-19 pandemic was 120·3 deaths (113·1–129·3) per 100 000 of the population, and excess mortality rate exceeded 300 deaths per 100 000 of the population in 21 countries. The number of excess deaths due to COVID-19 was largest in the regions of south Asia, north Africa and the Middle East, and eastern Europe. At the country level, the highest numbers of cumulative excess deaths due to COVID-19 were estimated in India (4·07 million [3·71–4·36]), the USA (1·13 million [1·08–1·18]), Russia (1·07 million [1·06–1·08]), Mexico (798 000 [741 000–867 000]), Brazil (792 000 [730 000–847 000]), Indonesia (736 000 [594 000–955 000]), and Pakistan (664 000 [498 000–847 000]). Among these countries, the excess mortality rate was highest in Russia (374·6 deaths [369·7–378·4] per 100 000) and Mexico (325·1 [301·6–353·3] per 100 000), and was similar in Brazil (186·9 [172·2–199·8] per 100 000) and the USA (179·3 [170·7–187·5] per 100 000).

Interpretation The full impact of the pandemic has been much greater than what is indicated by reported deaths due to COVID-19 alone. Strengthening death registration systems around the world, long understood to be crucial to global public health strategy, is necessary for improved monitoring of this pandemic and future pandemics. In addition, further research is warranted to help distinguish the proportion of excess mortality that was directly caused by SARS-CoV-2 infection and the changes in causes of death as an indirect consequence of the pandemic.

COVID-19 Excess Mortality Collaborators. Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020-21. Lancet. 2022 Apr 16;399(10334):1513-1536

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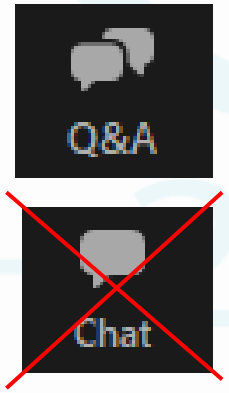
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