

# The Declining Well-being of the Young Morley Gunderson Lecture University of Toronto



Professor David 'Danny' Blanchflower

Bruce V Rauner Professor of Economics

Dartmouth, Glasgow, NBER, GLO and IZA

## Morley Gunderson – a great applied economist!

University of Wisconsin PhD. Elected, Fellows of the Royal Society of Canada and Labor and Employment Relations Association and lots of other honors.

140 journal papers, 15 authored books and 24 edited books! And even one with my co-author\*.

Areas are

Training

Immigration

Wage determination

Minimum wages

Retirement and pensions

Trade

Program evaluations

Disability

Childcare costs

Layoffs

Labor standards

Performance pay

Strikes and arbitration

Unions and collective bargaining

Youth labor markets

Happiness

*\* A Bryson, R Gomez, M Gunderson, N Meltz (2005), 'Youth-adult differences in the demand for unionization: are American, British, and Canadian workers all that different? **Journal of Labor Research**, 2005*

## Twelve recent Blanchflower and Bryson papers since 2022

With Xiaowei Xu 'The declining mental health of the young and the global disappearance of the hump shape in age in unhappiness', NBER Working Paper #w32337 (2024).

'The adult consequences of being bullied in childhood', *Social Science and Medicine*, (2024a).

'The consequences of abuse, neglect and cyber-bullying on the wellbeing of the young', NBER WP #32119 (2024b).

'The gender well-being gap', *Social Indicators Research*, forthcoming, (2024c).

'The female happiness paradox', *Journal of Population Economics*, (2024d).

'Long Covid in the United States', *Plos One* (2023a).

'Were COVID and the Great Recession well-being reducing?', NBER Working Paper #31497, (2023b).

'Seasonality and the female happiness paradox', *Quality and Quantity* (2023c).

'The effects of adverse childhood experiences on adults' subjective wellbeing', IZA Working Paper #16479 (2023d)

'Wellbeing rankings,' *Social Indicators Research*, (2023e).

'Covid and mental health in America', *Plos One*, (2022a).

'Further decoding the mystery of American pain: The importance of work', *Plos One*, (2022b).

## Declining Well-being of the young

- Started with US data from Behavioral Risk Factor Surveillance System (BRFSS), Household Pulse Survey, National Health Interview Survey, Youth Risk Behavior System for high school students, Healthy Minds for college students & National Health Interview Survey.
- Extended to UK, Canada, New Zealand, Netherlands and 36 other countries including earlier work for Australia and Canada\*
- Patterns in the data especially for young women not caused started in 2011.
- Hump-shape in ill-being in age disappeared – ill-being now slopes *down* in age and pattern is remarkably similar in developed and developing countries.
- Internet/cellphone usage a particular issue among young women since 2011
- Builds on work by Twenge and Haidt and co-authors.

\*Botha, Morris, Butterworth, Glozier (2023), 'Generational differences in mental health trends in the twenty-first century', *PNAS*, Garriguet (2021), 'Health of youth in Canada', in *Portrait of Youth in Canada*, StatsCanada. Udupa, Twenge, McAlliste, Joiner (2023), 'Increases in poor mental health, mental distress, and depression symptoms among U.S. adults, 1993–2020', *Journal of Mood and Anxiety Disorders*.

# Despair

*In 2022 10% of young American women age under 30 report that **every** day of their lives is a bad mental health day*

*Question “Now thinking about your mental health, which includes stress, depression and problems with emotions, for how many of the past 30 days was your mental health not good?”*

*David Blanchflower and Donna Feir, 'Native Americans' experience of chronic distress in the USA', *Journal of Population Economics*, 2022.*

*David Blanchflower and Andrew Oswald, 'Trends of extreme distress in the USA, 1993-2019', *American Journal of Public Health*, 110, pp. 1538-1544, 2020.*

Figure 3. Despair by age, BRFSS, 1993-2022

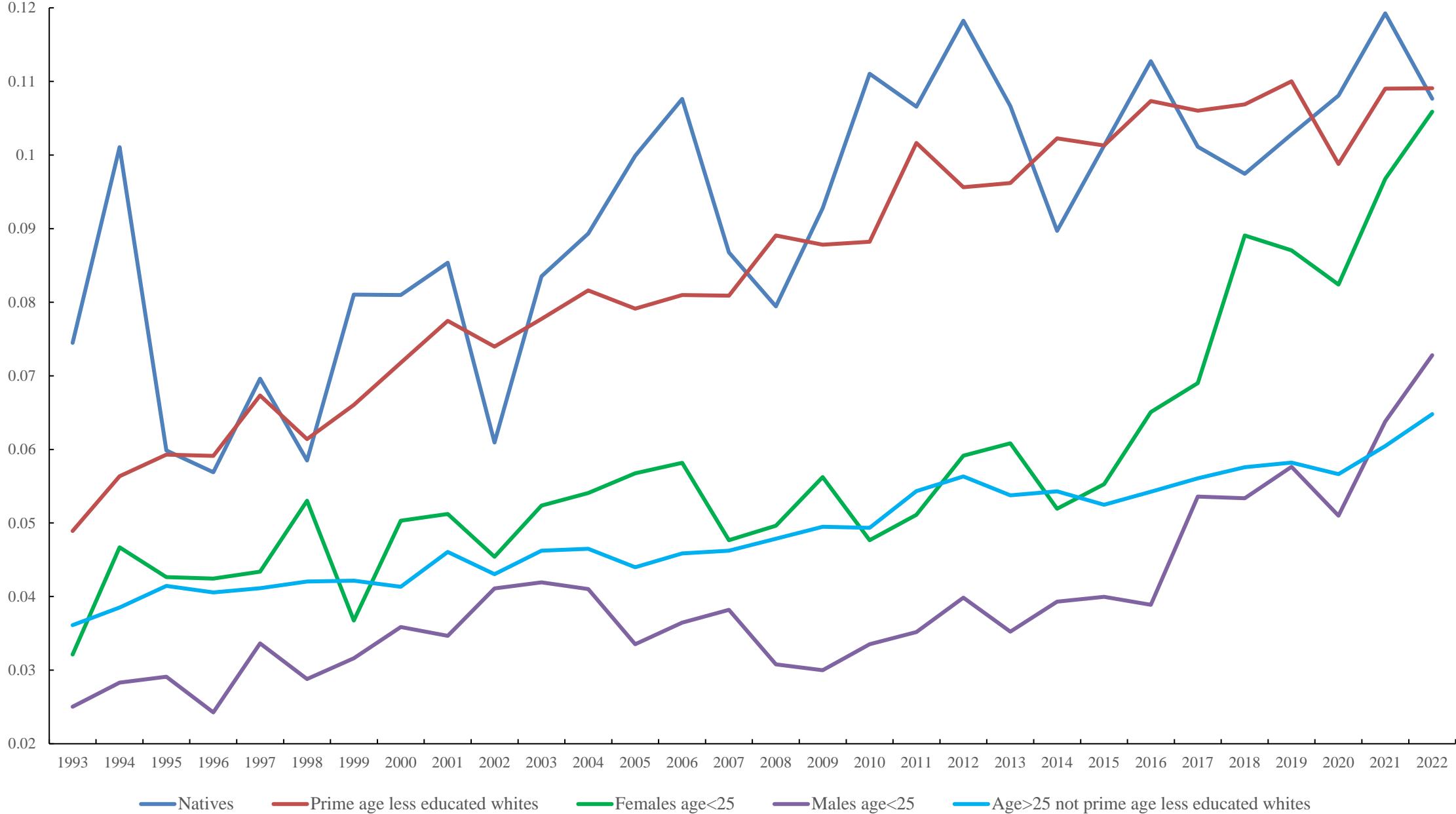




Table 3 OLS Despair equations for all, 1993-2022

	1993-1999	2000-2010	2011-2015	2016-2022
25-34	.0071 (7.70)	.0093 (14.06)	.0129 (15.77)	.0015 (2.16)
35-44	.0125 (13.63)	.0116 (17.97)	.0130 (16.06)	-.0022 (3.12)
45-54	.0136 (14.12)	.0145 (22.54)	.0127 (16.22)	-.0097 (13.89)
55-64	-.0019 (1.80)	-.0003 (0.50)	.0002 (0.30)	-.0250 (36.30)
65-74	-.0117 (9.27)	-.0193 (26.67)	-.0171 (20.21)	-.0382 (51.49)
75+	-.0110 (7.85)	-.0259 (33.85)	-.0269 (30.10)	-.0499 (63.01)
Female	.0141 (30.53)	.0137 (54.65)	.0114 (38.24)	.0143 (53.21)
N	873,911	3,412,943	2,317,981	3,028,739

Notes: Includes controls for state, race, education, lf status. T-statistics in parentheses. Source: BRFSS 1993-2022

Source: Blanchflower, Bryson and Xu (2024)

The evidence of declining well-being of the young is found in surveys  
of US high school and college students



*Over the last two weeks how often have you been bothered by any of the following problems? Feeling down, depressed or hopeless? College students.*

Average score	Males	Females
2007-2009	1.68	1.79
2010-2011	1.73	1.78
2012-2013	1.69	1.75
2014-2015	1.71	1.81
2015-2016	1.73	1.85
2016-2017	1.81	1.94
2017-2018	1.95	2.05
2018-2019	1.93	2.06
2019-2020	1.93	2.06
2020-2021	1.96	2.17
2021-2022	2.00	2.18
2022-2023	1.91	2.12

Notes; 1=not at all, 2= several days 3=more than half the days, 4=nearly every day.

Source: Healthy Minds, 2007-2023. Blanchflower and Bryson (2024b)

% Sad or Hopeless almost every day for two weeks – high school students

	Male	Female
1999	.21	.36
2001	.22	.35
2003	.22	.35
2005	.20	.37
2007	.21	.36
2009	.19	.34
2011	.21	.36
2013	.21	.39
2015	.20	.40
2017	.21	.41
2019	.27	.47
2021	.29	.57

Youth Risk Behavior System Surveys, 1999-2021 - Blanchflower and Bryson (2024b)

The evidence of declining well-being of the young is found in **24 developing and 19 developed countries**

Algeria

Germany

Nigeria

Switzerland

Angola

Guatemala

Norway

Tunisia

Argentina

Iraq

New Zealand

UK

Australia

Israel

Pakistan

Uruguay

Brazil

Italy

Paraguay

USA

Canada

Italy

Peru

Venezuela

Chile

Japan

Philippines

Yemen

Colombia

Jordan

Saudi Arabia

Ecuador

Mexico

South Africa

Egypt

Morocco

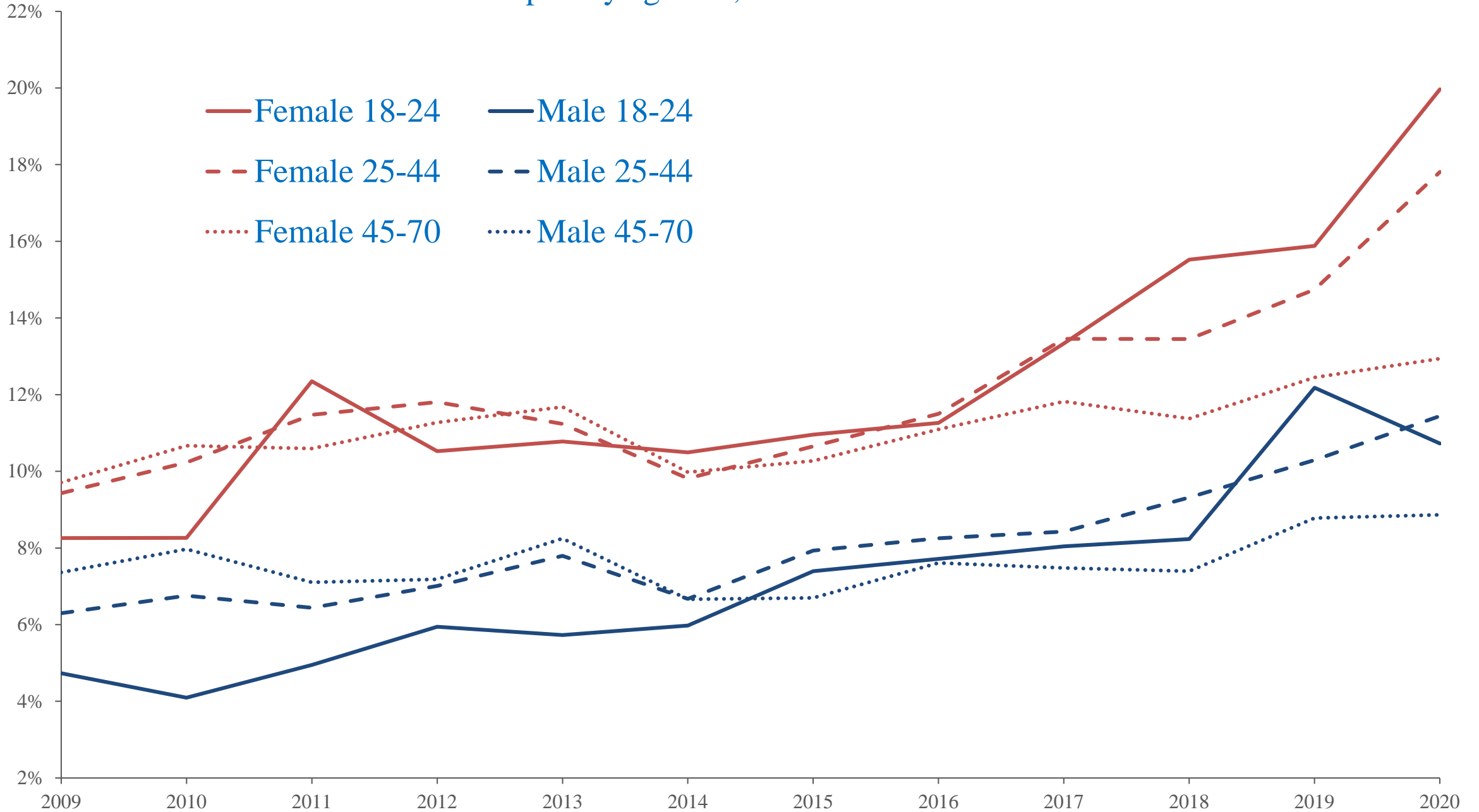
Spain

France

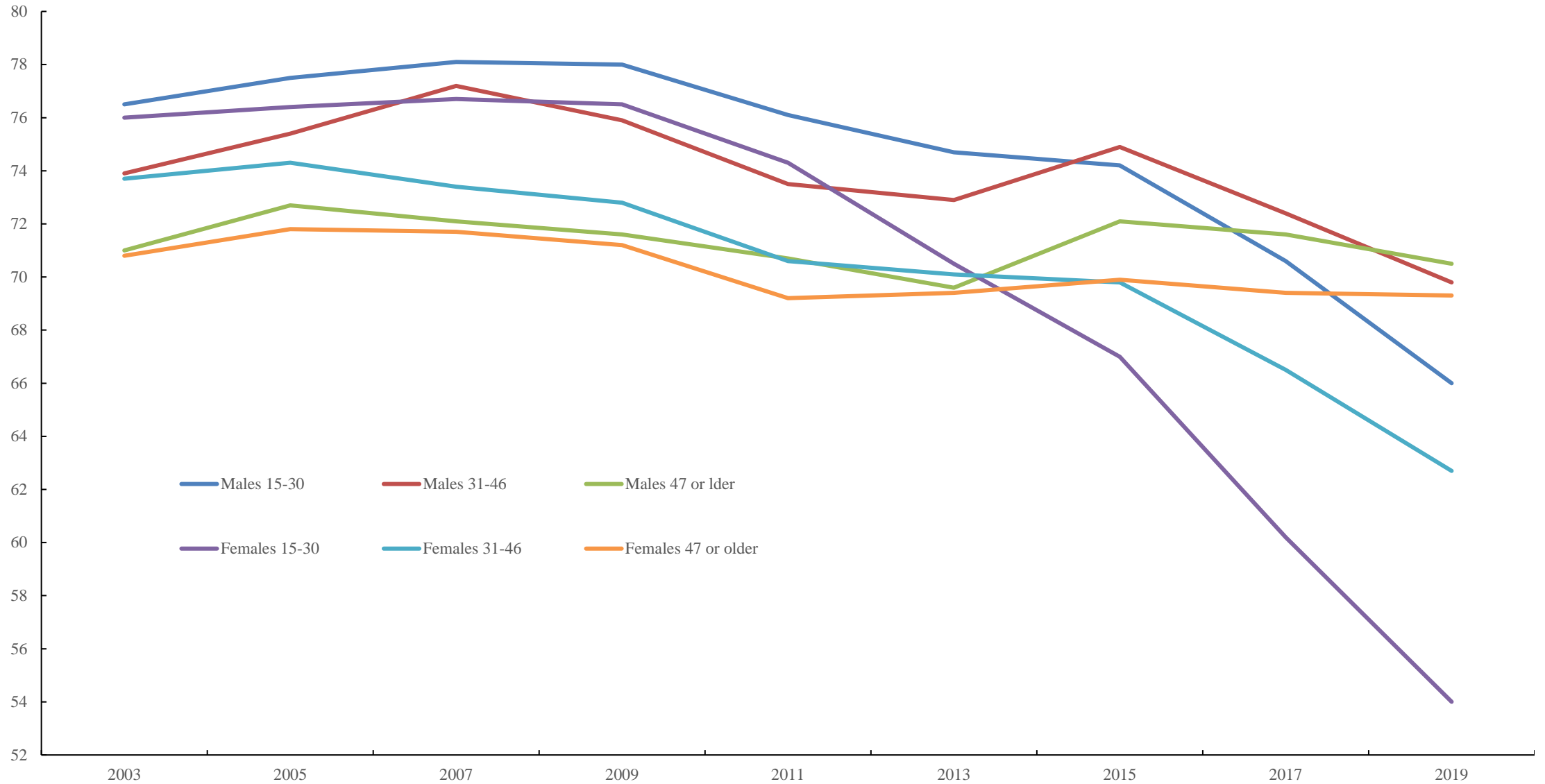
Netherlands

Sweden

Despair by age UK, 2009-2021



% Canadians saying mental health is 'very good or excellent', 2003-2019  
Source: Canadian Community Health Survey Garriguet (2021),



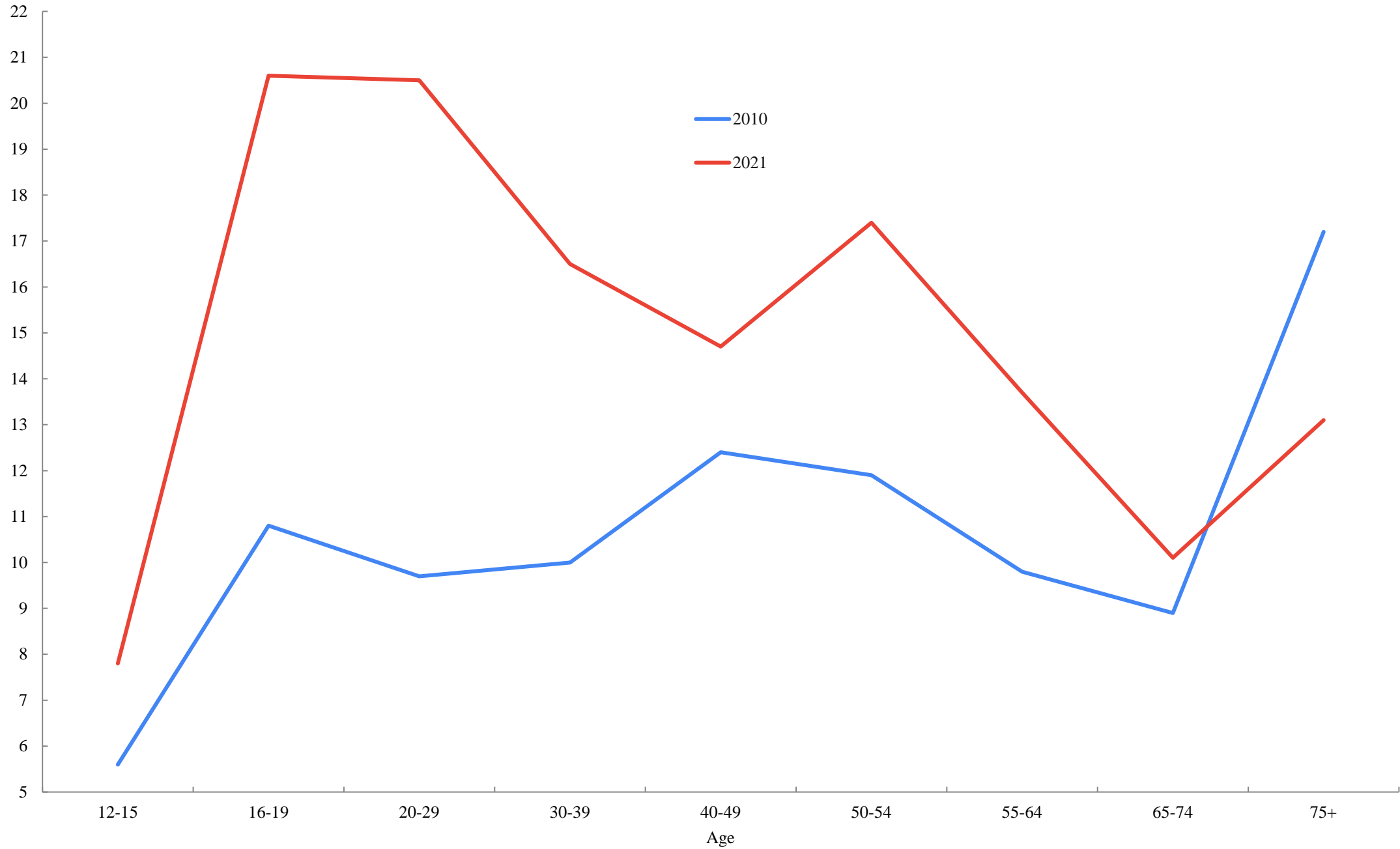
## Canadian youth and self-harm and presentations to emergency rooms

- Rates of youths with self-harm visits fell 32% from 2.6/1000 in 2003 to 1.8 in 2009.
- Rates of youths with mental health visits rose from 11.7/1000 in 2003 to 13.5 in 2009 (15%) and to 24.1 (78%) by 2017.
- Since 2010, in Canada there has been a 138% increase in self-harm hospitalization for 13-17-year-old girls (from a low of 294.0 per 100,000 teens in 2010 to a high of 701.6 per 100,000 in 2017).
- Boys show an increase too, but from a much lower baseline, and there is no spike around 2012.\*\*

\* Gardner W, Pajer K, et al (2019) 'Changing rates of self-harm and mental disorders by sex in youths presenting to Ontario Emergency Departments: repeated cross-sectional study', *The Canadian Journal of Psychiatry*, 64(1),

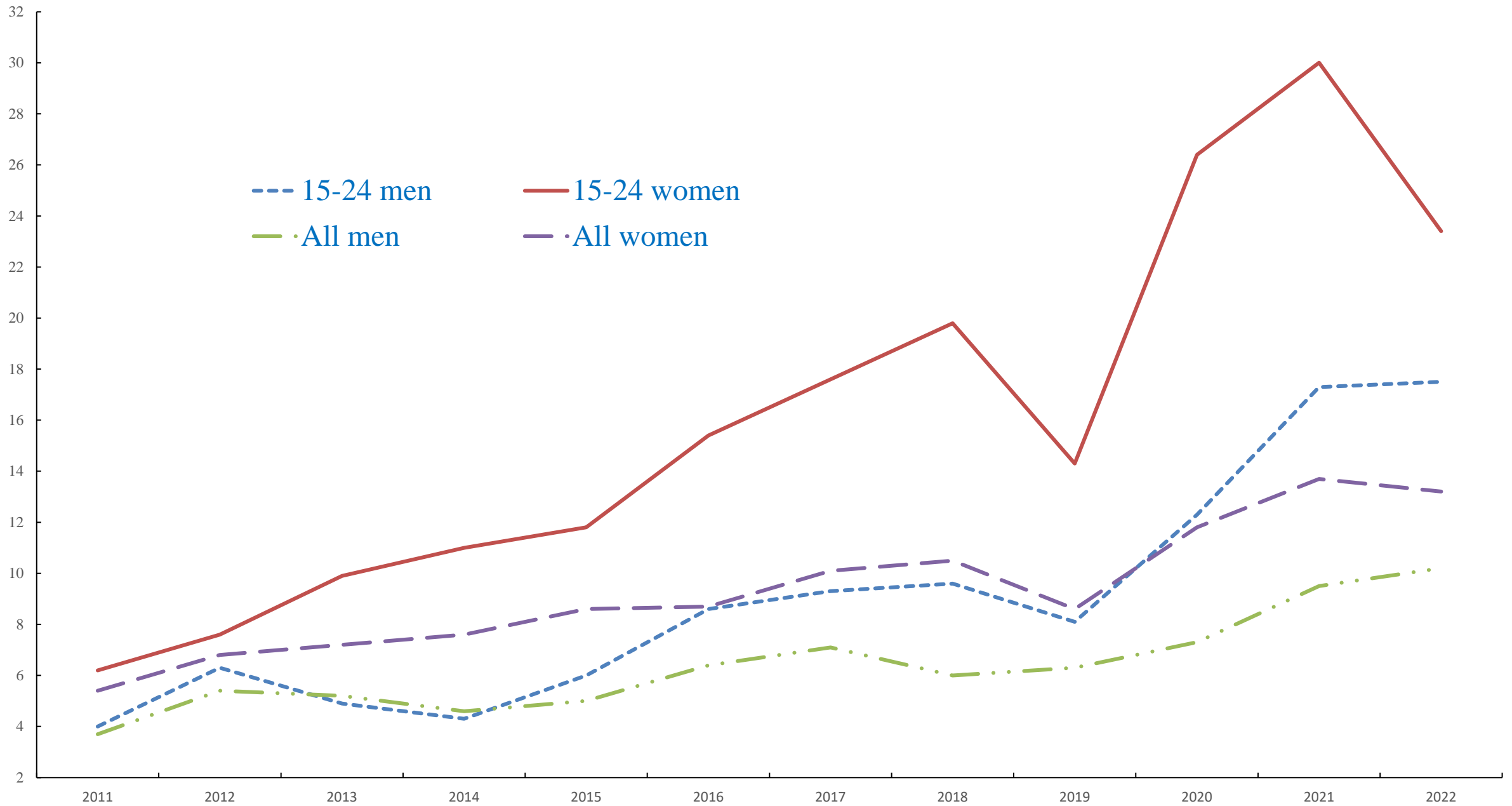
\*\* Rausch Z and J. Haidt (2023), *The Teen Mental Illness Epidemic is International, Part 1: The Anglosphere Why did mental health fall off a cliff at the same time and in the same way in the USA, The UK, Canada, Australia, and New Zealand? March 29.*\*

% Mentally Unhealthy in the Netherlands





Psychological Distress 'high' or 'very high' % - New Zealand - Kessler 10 scale



The relationship between mental health and age shifted between 2011  
and 2021

From upward to downward sloping in age

It also means the inverted U-shape is gone – oops...!

Despite there being a 600+ paper literature on its existence including many by yours truly...

## **Blanchflower Wellbeing U-shape and illbeing hump shape papers**

With Carol Graham and Alan Piper, 'Happiness and age – resolving the debate', *National Institute Economic Review*, 2023.

'Is happiness U-shaped everywhere? Age and subjective well-being in 145 countries', *Journal of Population Economics*, 2021.

With C. Graham, 'Happiness and ageing', in *Handbook of the Economics of Ageing*, edited by David Bloom, Alfonso Sousa-Poza and Uwe Sunde, Routledge, 2023.

With C. Graham, 'The mid-life dip in well-being: a critique', *Social Indicators Research*, 2021a.

With C. Graham, 'The U-shape of happiness: A response', *Perspectives on Psychological Science*, 2021b.

'Unhappiness and age', *Journal of Economic Behavior and Organization*, 2020.

With Andrew Oswald, 'Antidepressants and age: a new form of evidence for U-shaped well-being through life', *Journal of Economic Behavior and Organization*, 2016.

With Andrew Oswald "Is well-being U-shaped over the life cycle?", *Social Science & Medicine*, 2008.

With Andrew Oswald, 'Well-being over time in Britain and the United States', *Journal of Public Economics*, 2004.

Age profile in despair, USA, BRFSS, 2009-2022

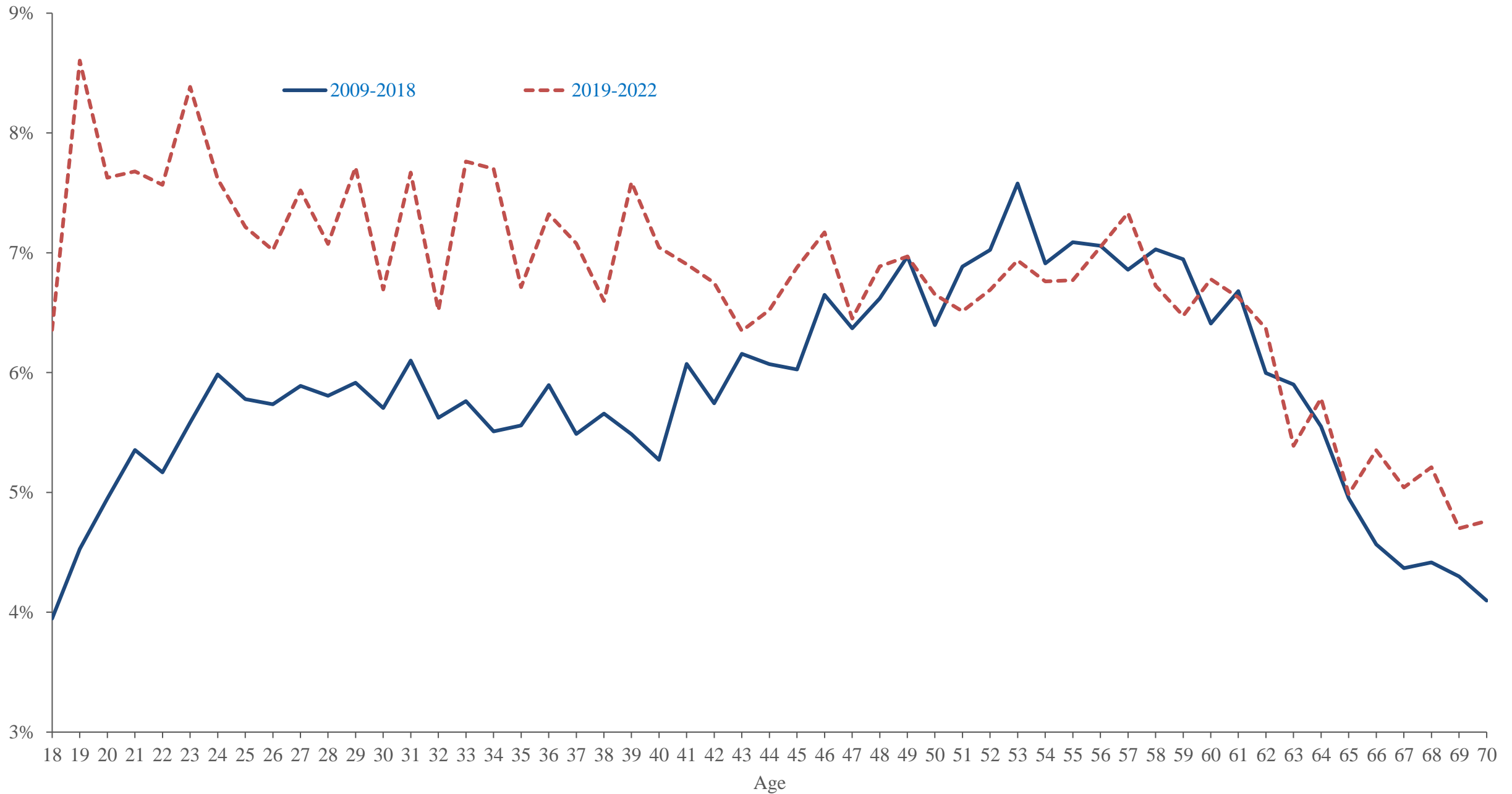


Figure 6. Age profile in despair, UK. Using GHQ score which is measured on a scale of 0 to 36 (Likert scale), where a score of 20 or higher we consider to be 'despair'

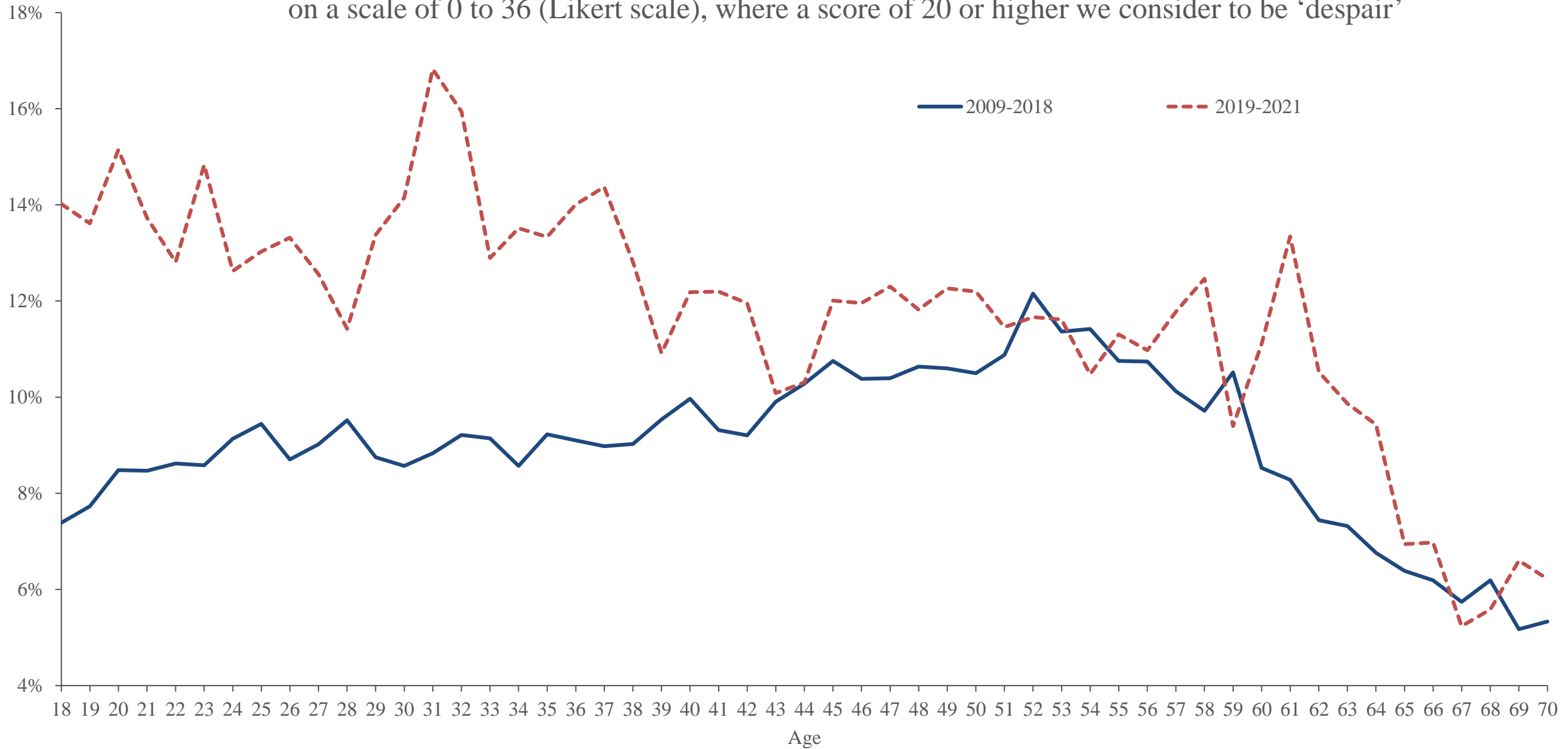
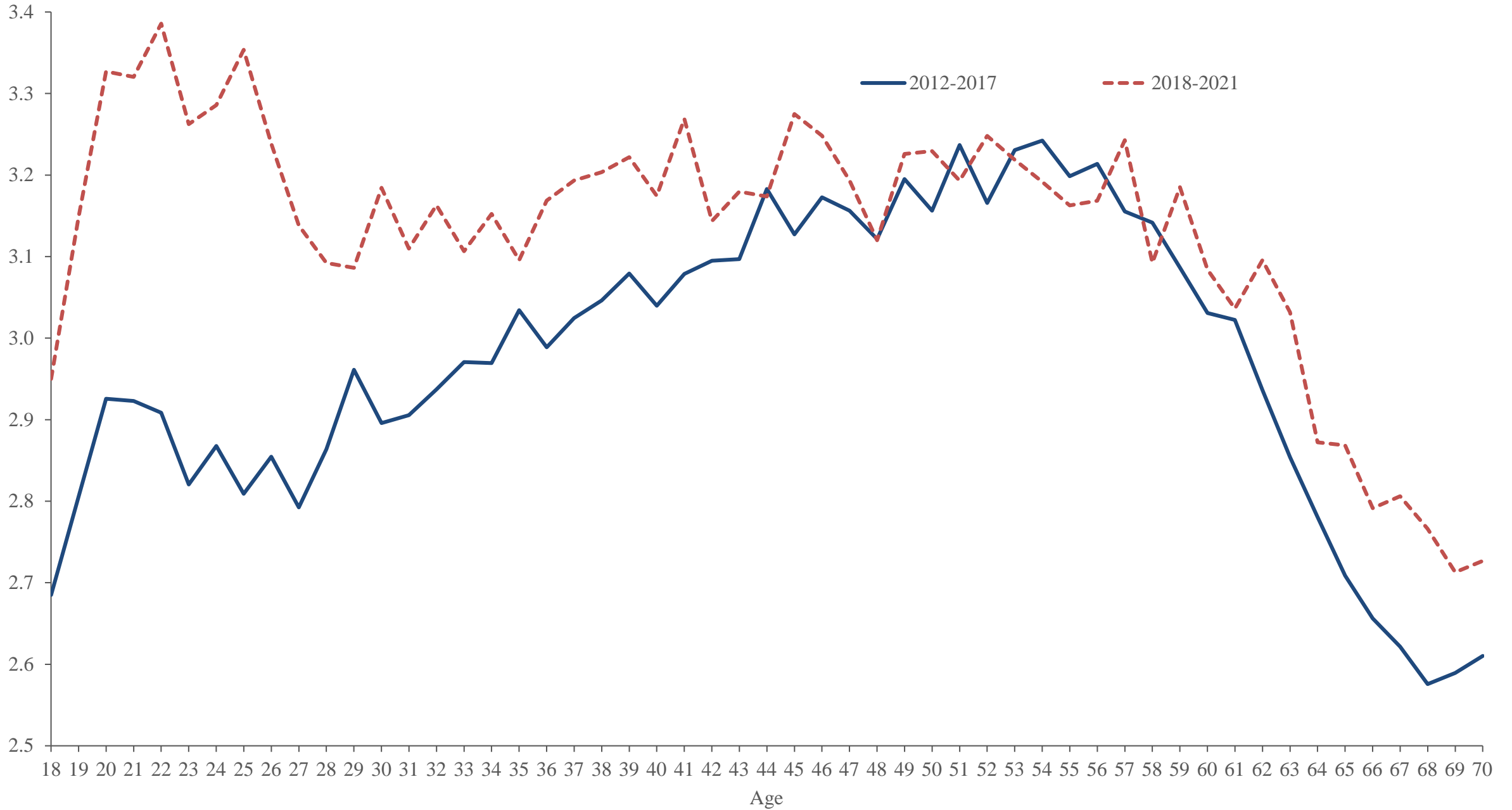


Figure 7: Age profile in anxiety, UK, Annual Population Survey, 2012-2021





What has happened since 2020?

% ‘Distressed & struggling’ across 34 countries, from the **Global Mind Database, 2020-2024**

	Canada	Australia	France	Germany	India	Italy	NZ	Spain	UK	USA
18-24	.50	.54	.56	.53	.53	.29	.57	.51	.57	.48
25-34	.42	.43	.31	.32	.45	.14	.43	.41	.48	.36
35-44	.33	.38	.28	.31	.30	.16	.34	.35	.43	.31
45-54	.27	.33	.22	.30	.17	.17	.27	.25	.38	.28
55-64	.19	.25	.14	.26	.11	.13	.17	.16	.30	.19
65-74	.09	.14	.10	.13	.08	.10	.10	.08	.17	.09
75-84	.05	.07	.07	.11	.08	.07	.06	.07	.09	.05
85+	.04	.06	.0	.14	.05	.04	.07	.08	.11	.04
All	.23	.31	.21	.28	.32	.12	.24	.29	.36	.21

Also found in Algeria; Angola; Argentina; Brazil; Chile; Colombia; Ecuador; Egypt; Guatemala; Iraq; Jordan; Mexico; Morocco; Nigeria; Pakistan; Paraguay; Peru; Philippines; Saudi Arabia; South Africa; Tunisia; Uruguay; Venezuela and Yemen

Negative affect regressions from Global Minds Database n=1203932 across 32 countries

	MHQ score (+ve better)	Distressed or struggling	Overwhelming feelings	Fear and Anxiety.	Suicidal thoughts or intentions
Female	-9.19 (73.84)	.0428 (54.68)	.6763 (134.40)	.5583 (120.47)	.1099 (24.06)
25-34	13.24 (52.25)	-.0834 (52.27)	-.3510 (34.25)	-.1773 (18.80)	-.7287 (78.28)
35-44	31.41 (121.10)	-.1755 (107.45)	-.9816 (93.61)	-.6452 (66.81)	-1.3150 (138.04)
45-54	47.71 (186.07)	-.2487 (154.00)	-1.4906 (143.79)	-1.0481 (109.77)	-1.6334 (173.42)
55-64	62.28 (239.69)	-.3071 (187.66)	-1.9587 (186.45)	-1.3927 (143.95)	-1.9044 (199.53)
65-74	73.98 (235.56)	-.3550 (179.47)	-2.3507 (185.14)	-1.6886 (144.40)	-2.1341 (185.01)
75-84	84.33 (208.44)	-.3924 (154.02)	-2.7536 (168.34)	-2.0205 (134.12)	-2.3550 (158.47)
85+	89.74 (108.80)	-.4072 (78.39)	-3.0577 (91.69)	-2.2692 (73.89)	-2.5009 (82.55)
R <sup>2</sup>	.2241	.1435	.1644	.1100	.1482

*"Being scared or worried and experiencing feelings and sensations of nervousness or panic in your mind or body". "Thinking or feeling like you want to kill or physically harm yourself"*

*"Experiencing overwhelming feelings of unhappiness, sorrow and hopelessness, or having spells of uncontrollable crying".*

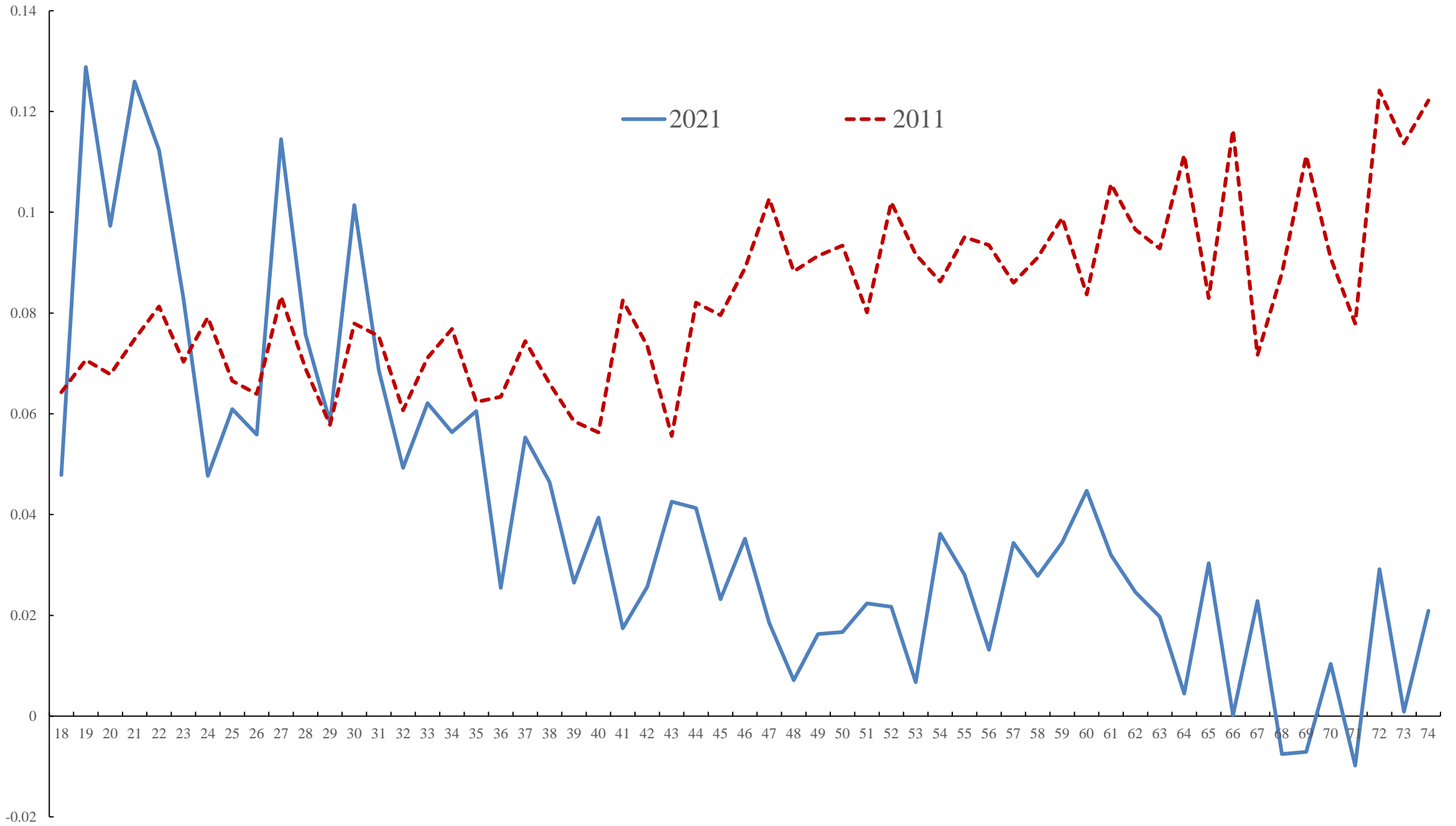
1 to 9 scale: 1 never causes me any problems: 5 sometimes causes me difficulties or distress but I can manage; 9=has a constant and severe impact on my ability to function. MHQ assessment of people's cognitive and emotional capabilities, calculated on a 300-point scale running from -100 to +200

New paper for France, Germany, Italy, Spain and Sweden

*Further Evidence on the Global Decline in the Mental Health of the Young from a European Panel*

Blanchflower, Bryson, Anthony Lepinteur (Luxembourg) and Alan Piper (Leeds)

% saying often and very often were unhappy and depressed last 4 weeks, ISSP 2011 and 2021.



## Depression in COME-HERE survey for France, Germany, Italy, Spain and Sweden

The PHQ total score is distributed as follows overall and for the young. So 26% of young females, 21% of young males, and 9% males  $\geq 25$  and 12% of females age 25 and over have moderately severe or severe depression (scores  $\geq 15$ ).

	$\geq 25$ Male	$\geq 25$ Female	$< 25$ Male	$< 25$ Female
0%	27%	18%	11%	6%
1-4	33%	30%	18%	16%
5-9	21%	26%	23%	27%
10-14	10%	13%	26%	24%
15-19	6%	8%	15%	18%
20-24	2%	3%	5%	6%
25-27	1%	1%	1%	2%
N	26,627	25,999	1,832	3,436

Score Depression Severity = 1-4 Minimal depression; 5-9 Mild depression; 10-14 Moderate depression; 15-19 Moderately severe depression; 20-27 Severe depression.

## Age effect in COME-HERE survey for France, Germany, Italy, Spain and Sweden

	PHQ	GAD	Life satisfaction	N
France	-.0983 (13.74)	-.0750 (12.12)	.0195 (7.07)	12,453
Germany	-.1234 (17.09)	-.1023 (16.74)	.0256 (9.36)	11,073
Italy	-.1157 (17.13)	-.0847 (14.86)	.0155 (6.20)	12,260
Spain	-.1322 (16.08)	-.0966 (14.45)	.0237 (8.59)	12,708
Sweden	-.1367 (16.18)	-.1246 (18.22)	.0365 (11.11)	7,706

Age coefficients and t-statistics in regression controlling for wave and gender.

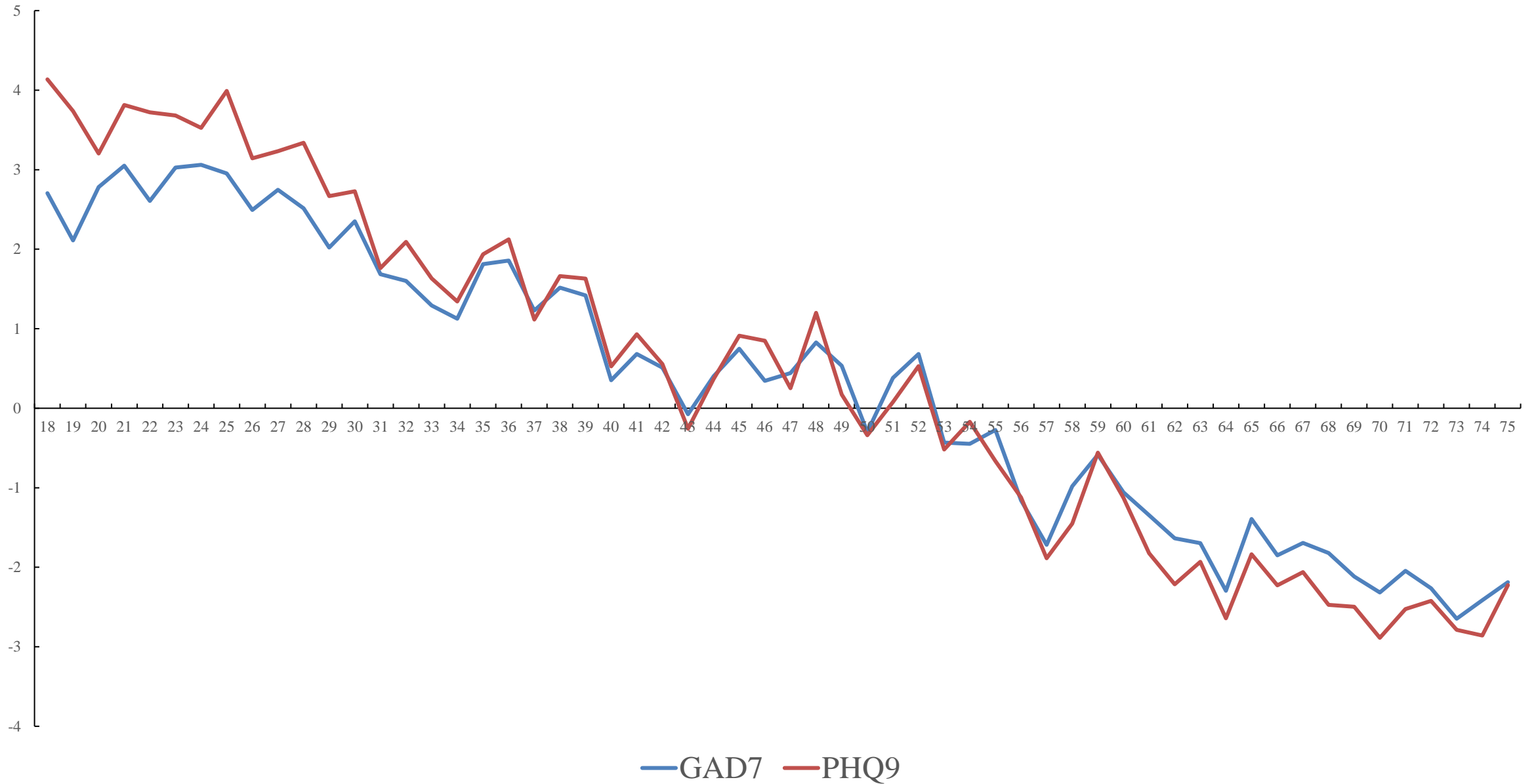


## Chronic depression in Europe, 2014-2019 ages 15-24 from Eurostat

	2019	2019	2014	2014
	Males	Females	Males	Females
EU27	5.5	8.7	2.6	4.7
Finland	7.5	10.0	8.7	12.6
France	5.6	9.7	2.2	3.1
Germany	9.9	13.1	6.0	11.5
Greece	2.4	5.0	2.0	1.0
Italy	3.5	6.9	0.6	0.6
Spain	3.6	7.7	1.3	2.1
Sweden	10.0	13.4	6.0	14.8

Chronic depression refers to the proportion of the population reporting chronic depression in the past 12 month based on the PHQ score. These data are from the second and third wave of the European Health Interview Survey (EHIS), covering people age 15+.

COME\_HERE People fixed effects vs age  
Obtained from a regression with people fixed effects and wave



## Then there was the cell phone and the internet

- iPhone was unveiled in January 2007 and sold 4.7 million phones in Q32008
- The iPad was launched in January 2010.
- In q12011 Apple sold 18.6 million iPhones, while Samsung sold 17.5m.
- Sales of smartphones worldwide rose from
  - 122m in 2007;
  - 297m in 2010;
  - 472m in 2011;
  - 690m in 2012;
  - 970m in 2013;
  - 1.2 billion in 2014
  - 1.5 billion a year since 2018.
- Launched in October 2010 Instagram had one million registered users in two months, 10 million in a year, and 1 billion by June 2018

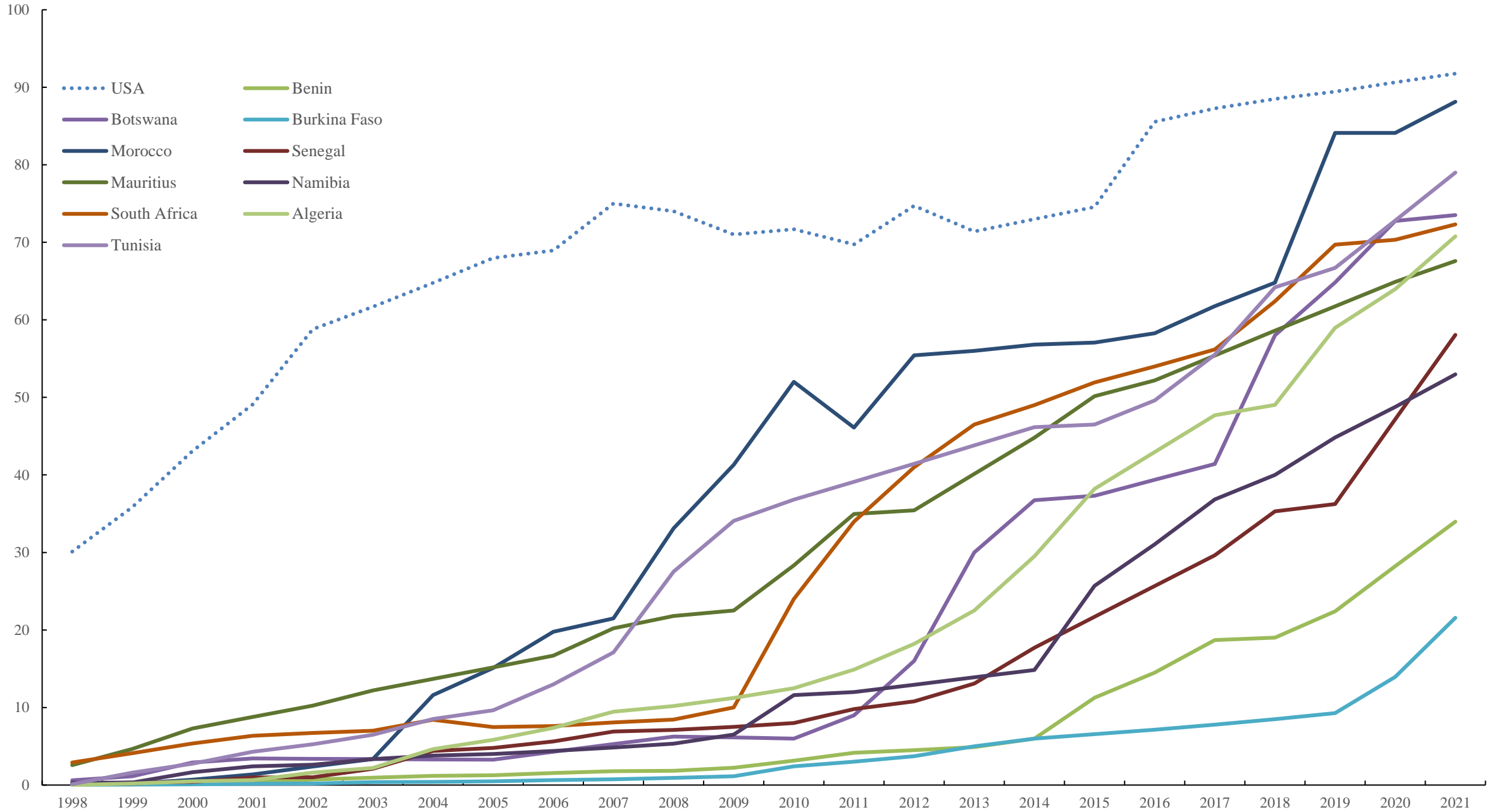
## Screen time per day by year – high school students

Female	4 hours	5+ hours	Male	4 hours	5+ hours
2003	4	4	2003	6	10
2005	4	3	2005	6	9
2007	5	7	2007	6	10
2009	5	6	2009	6	10
2011	6	10	2011	8	14
2013	8	21	2013	9	19
2015	9	21	2015	9	18
2017	8	22	2017	9	20
2019	10	21	2019	11	20
2021	18	43	2021	17	36

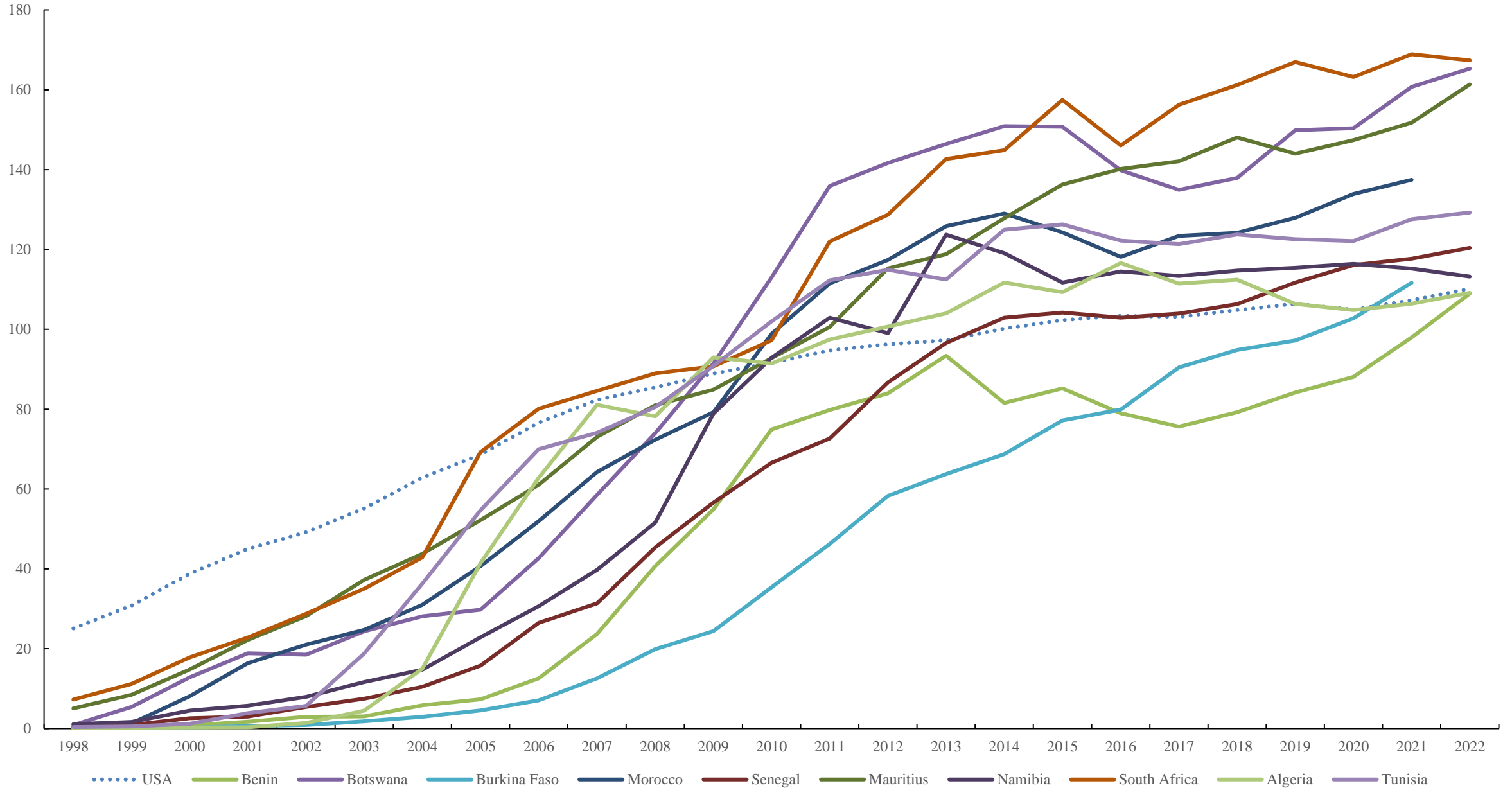
Youth Risk Behavior Surveys, 1999-2021 - Blanchflower and Bryson (2024b)

The UN has provided data on internet and cell phone usage in Africa  
and US

# Internet usage as % of population Africa and the USA



# Cell phone subscriptions per 100 people Africa and the USA





## Conclusion #1

- The decline started in 2011 and has been highest among young women and does not appear to be driven by COVID which extended pre-existing trends
- The hump shape in unhappiness – the midlife crisis has disappeared
- The rise is associated with internet and smart phone usage
- We have found evidence from a European panel that mental ill-health among the young is highly persistent. There are analogies to it unemployment.
- Our work on bullying in the NCDS for the UK\* shows that if a child was bullied at age 7 or 11 - as reported by their mother – this reduces wellbeing and even mortality fifty years later. It appears to inflame the blood.
- We find no evidence – yet - that the rise is driven by labor market outcomes.
- We identified declining well-being of the young in 43 countries.

\* Blanchflower/Bryson, 'The adult consequences of being bullied in childhood', *Social Science & Medicine*, (2024a).

Suicide rates, ages 15-24, USA. Source: Garnett and Curtin (2023)



## Conclusion #2

- It seems cellphones and internet usage have risen around the world since 2011 that Haidt\* calls the ‘great rewiring’ that is the driving force behind the rise – timing is right.
- Concern is that the cyberbullying will lead to bad long-term outcomes. We have already seen a rise in the suicide rates and Emergency room visits for self-harm.
- Critics such as Odgers\*\* have argued this confuses causation with correlation, which is what the tobacco companies always argued. She claims “*there is no evidence that using these platforms is rewiring children’s brains or driving an epidemic of mental illness,*”
- Odgers argues ringing of a false alarm “*might distract us from effectively responding to the real causes of the current mental-health crisis in young people,*” which, she suggests, are social ills such as racism, economic hardship, and the lingering impact of the 2008 Global Financial Crisis and its disparate impact on children in low SES families.

\*Haidt J (2024), *The Anxious Generation. How the Great Rewiring of Childhood is Causing an Epidemic of Mental Illness*, Penguin, Random House.

\*\*Odgers C (2024), ‘The great rewiring: is social media really behind an epidemic of teenage mental illness?’, *Nature*, 29 March.

