Prevention

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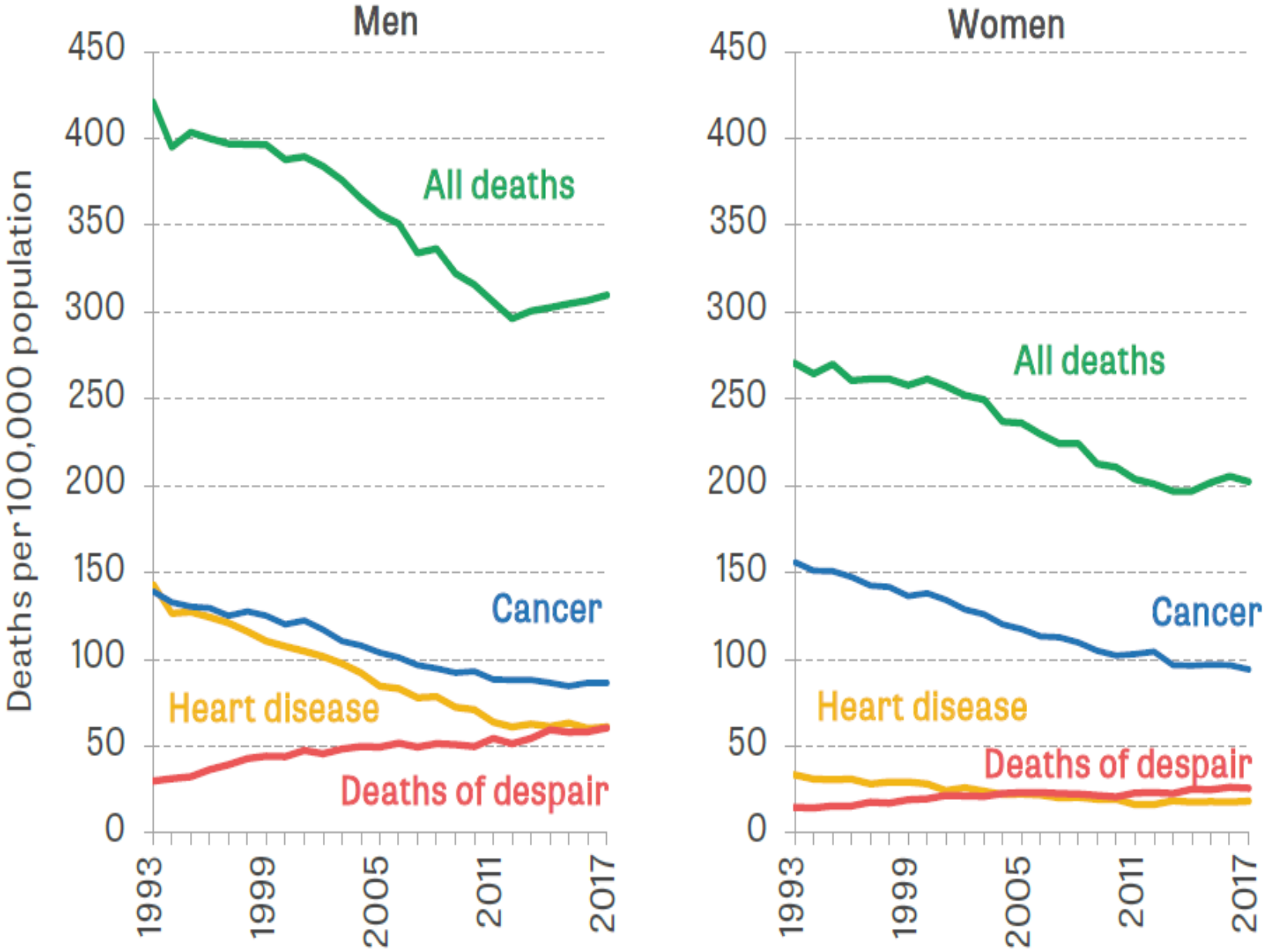
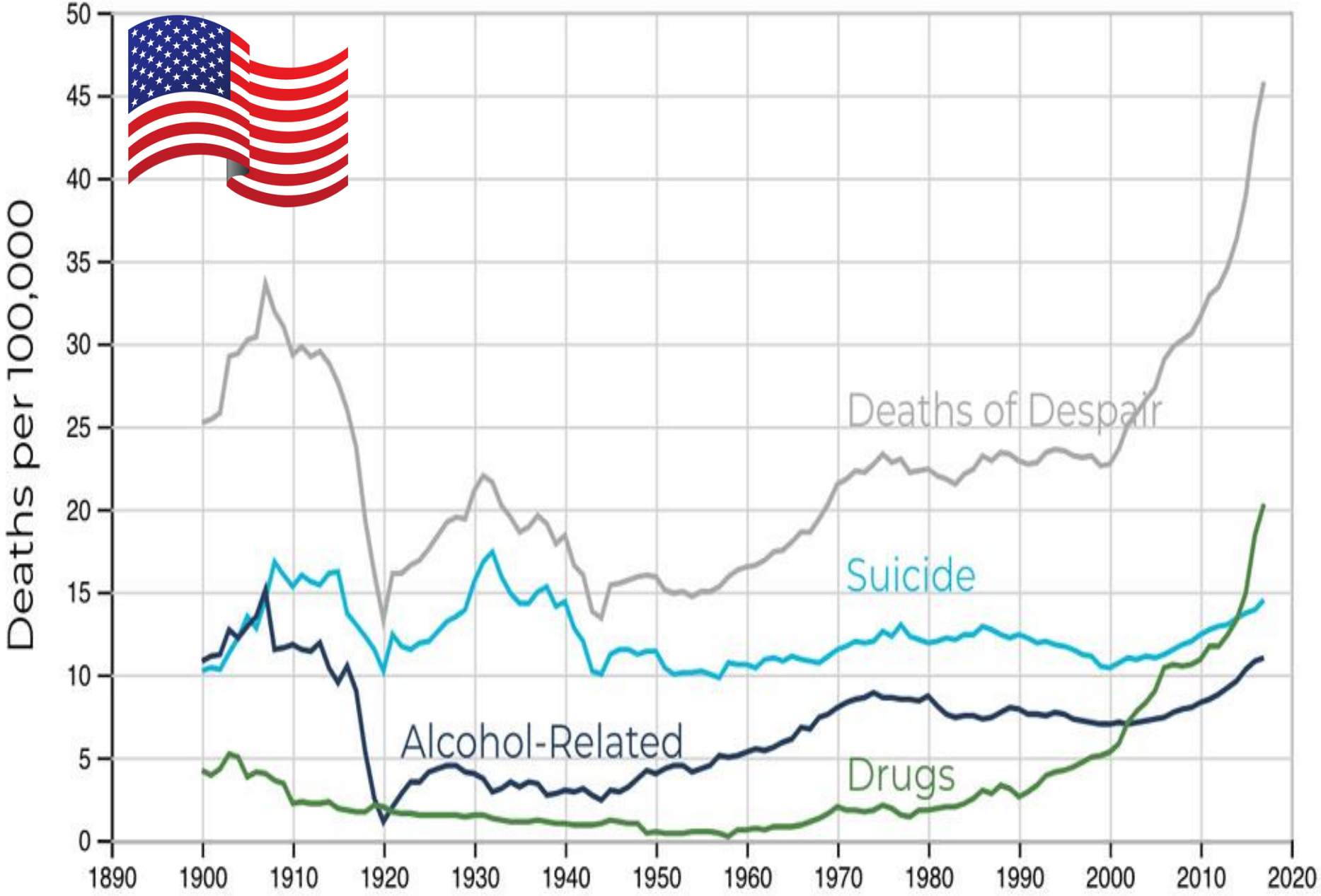
What I am going to tell you

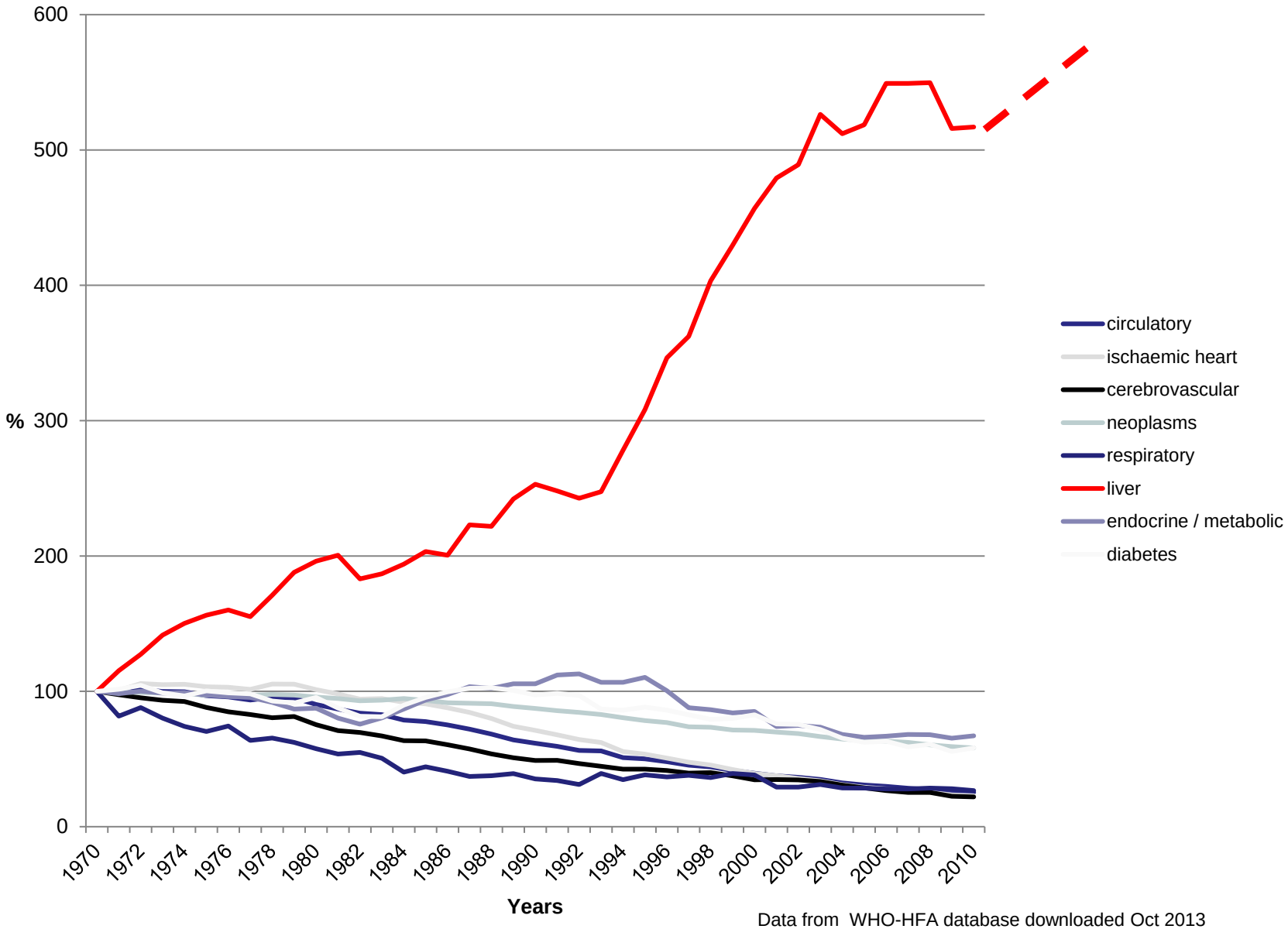
- How bad things are, progressions are negative
- In 1970s “the 1%” owned 3% of the world’s resources (wealth)… now they own 8%, rising
- Corporate America (Apple, Amazon, Facebook, Google) pay less or no taxes, mirrored in UK: so others pay
- There is no Either/Or when it comes to prevention of Physical “or” Mental disorders – sustained actions will prevent both disorders and prolong life
- Across agespan, services, transdiagnostic, taskshift
- Start locally: proportionate, multilevel, sustainable

Figure 5. Middle-age mortality (aged 45–54) in England, 1993–2017



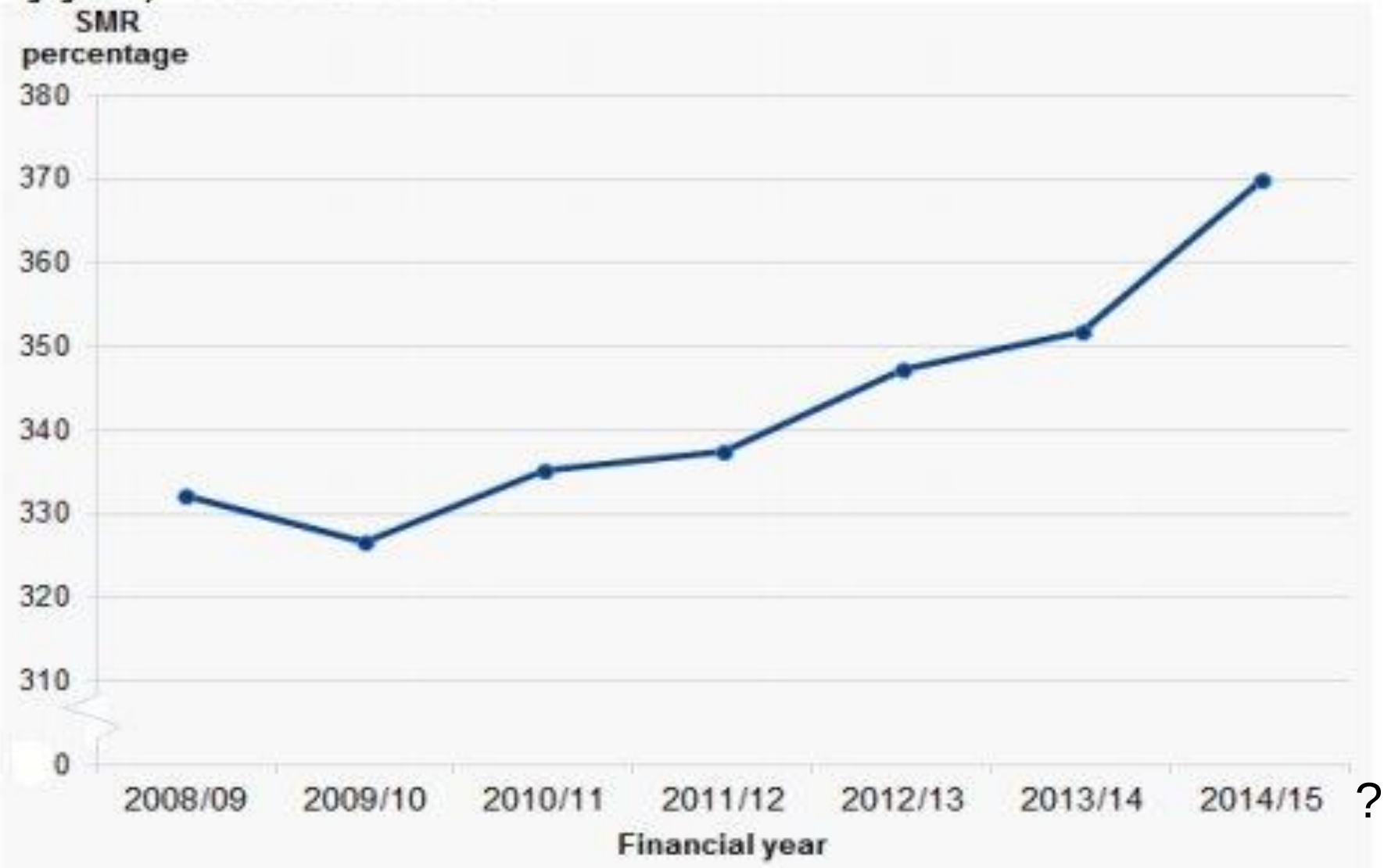

Deaths per 100,000
50
45
40
35
30
25
20
15
10
5
0
1890
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
Deaths of Despair
Suicide
Alcohol-Related
Drugs

Percentage change in standardised UK mortality rates (age 0-64) normalised to 100% in 1970



Data from WHO-HFA database downloaded Oct 2013

Figure 1: Standardised mortality ratio (SMR) between general adult population and individuals with a serious mental illness (indicator 1.5.i) by year, 2008/09 to 2014/15



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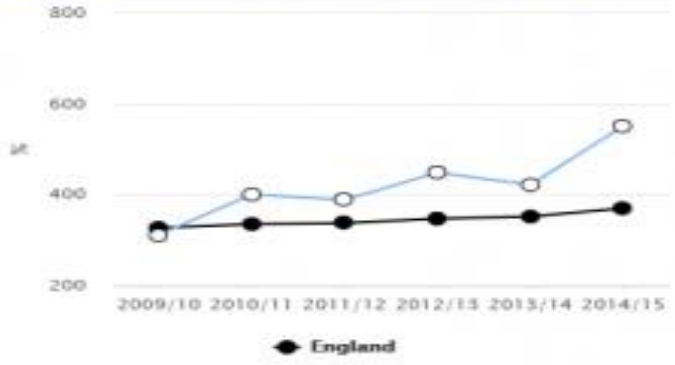
Stockton-on-Tees (above) and Wessex

Excess under 75 mortality rate in adults with serious mental illness (ratio of observed to expected mortalities)

Stockton-on-Tees

Indirectly standardised ratio - %

Export chart as image Show confidence intervals



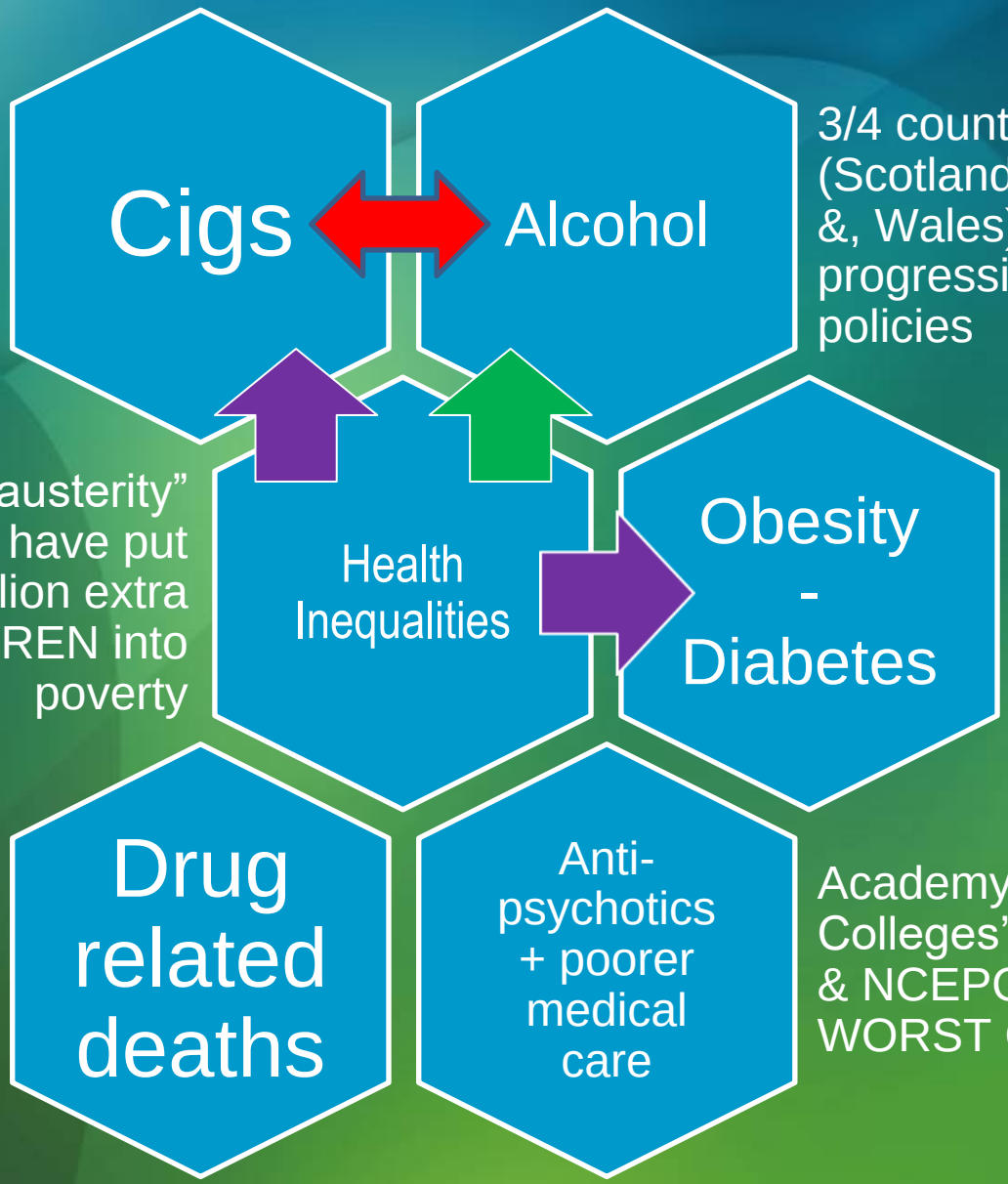
Recent trend: –

Period		Count	Value	Lower CI	Upper CI	North East	England
2009/10	○	-	311.7	232.8	408.7	-	326.7
2010/11	○	-	400.4	316.5	499.7	-	335.3
2011/12	○	-	388.5	306.6	485.6	-	337.4
2012/13	○	-	448.6	360.7	551.4	-	347.2
2013/14	○	-	421.7	338.2	519.5	428.7	351.8
2014/15	○	-	551.0	461.0	653.4	461.2	370.0

Source: HSCIC Indicator portal, NHS Outcomes Framework Indicator Set, Domain 1, Indicator 1.5 / https://indicators.hscic.gov.uk/webview/

<u>Wessex</u>: most people with SMI on case register:

- People with SMI comprise 1-2% of the population
- Proportion of premature deaths <75: SMI is **17%**, rising



3/4 countries (Scotland, N Ireland &, Wales) have progressive MUP policies

In the UK, “austerity” policies have put ONE million extra CHILDREN into poverty

Heroin-methadone deaths have DOUBLED in 3 years, England

Academy of R Med Colleges’ 2016 report & NCEPOD describe WORST OUTCOMES

Jacka (2012) Primary Prevention of common mental disorders *BMC Medicine*

Key causes of depression / anxiety:

- Poverty-inequality
- Childhood abuse/ ACEs
- Social networks (highly predicted by first two)
- Drug & alcohol misuse: each tends to be more severe (with/without addiction) if starts young

Focus on greatest area of plasticity <u>but less significant</u> three drivers:

- Diet
- Exercise
- Smoking

But a cynical politician might characterise these as lifestyle choices…

- 4th = **Sleep**: Firth et al, Oct 2020 in *World Psychiatry*

BJPsych Bulletin October 2020: Byrne & James; WHO video on Poverty-Inequality: https://www.youtube.com/watch?v=NwnhWJUsUnY

Physical inactivity	1·25 (1·03–1·52)
Overweight or obesity	1·39 (1·13–1·71)
Diabetes	1·52 (1·23–1·89)
Cardiovascular disease	2·07 (1·66–2·59)
Heavy alcohol use	2·20 (1·74–2·78)
Poor self-rated health	2·24 (1·97–2·54)
Cancer	2·31 (1·82–2·95)
Liver or digestive disease	2·76 (2·25–3·38)
Smoking	2·82 (2·38–3·34)
Respiratory disease	3·05 (2·47–3·77)

4 or more ACES → 19/23 outcomes

Anxiety	3·70 (2·62–5·22)
Low life satisfaction	4·36 (3·72–5·10)
Depression	4·40 (3·54–5·46)
Illicit drug use	5·62 (4·46–7·07)
Problematic alcohol use	5·84 (3·99–8·56)
Violence victimisation	7·51 (5·60–10·08)
Violence perpetration	8·10 (5·87–11·18)
Problematic drug use	10·22 (7·62–13·71)
Suicide attempt	30·14 (14·73–61·67)

Ref: Karen Hughes, Lancet Public Health, 2017 - The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis

Primary Prevention STOPS disorder or unwanted event from happening: e.g. PKU and hip screening neonates, child vaccinations	**(universal suicide pv) domestic gas & catalytic converters, gun control, restrict paracetamol sales; suicide hot spots – railways, heights**	**National crisis lines Samaritans, 111; across England IAPT; NHS Health Checks for EI & SMI: ↑BP, overweight, cigs + (short of 60% target)**	**Support for populations across the lifespan; school mindfulness progs; support at diff life transitions; targeted COPMI, men in 50s**
Secondary Prevention identifies cases for Early Intervention (**EI**): blood pressure and cancer screening programmes; builds Universal awareness	CAMHS Teams if they have the resources for lower thresholds; perinatal teams, providing support to many in antenatal period; EI Psychosis Team transdiagnostic for "at risk" states	Universal e.g. UK SureStart & US Pre-K; Programmes that identify and support schoolchildren who self harm (20% +); Memory clinics: funct memory loss, treat depression, supports	Liaison psychiatry: identifying cases (depress, delirium, dementia, addictions psychosis) as early as possible; treatment, training other teams, liaison with GP & community services
Tertiary Prevention aims to stop or slow progression of disease / disorder: >95% of primary care (GP) and acute services (ED, clinics)	99% of activities of psychiatric services: focus on risks to self or others & delegates physical health checks: "don't just screen, intervene"	Challenge of 2/3 of UK pop overweight, with SMI twice this: harder to lose weight and maintain this; postcode prescribing of bariatric surgery	Even in secondary MH services, comorbid addictions and/or physical diseases are falling between fragmented health services

Crossing between primary and secondary prevention: **Perinatal Psychiatry**

- Secondary prevention in mothers who are screened for post natal depression (PND) by midwives
- Primary prevention: engaging pregnant women likely to develop PND; secondary Pv in women with a history of psychosis – 2/3 likely to relapse without Rx
- Universal prevention: training up midwives / ObsGyn
- Task shifting: mental health activities by <u>all</u> staff
- Most interventions that protect/support mothers are <u>*primary prevention for infant*</u>: attachment / bonding

What do I do? Gastro / Liver / ED

- Advice about Mood / Anxiety Apps: self-management
- Sleep hygiene: caffeine, nicotine, screens, alc & subst
- Exercise * to reduce anxiety & depression: Schuch 2019
- Social networks up to / including *Social prescribing*
- Problem-solving: debt, housing, relationships etc
- Mindfulness: potential to assist, rarely harm (PTSD)
- Diet advice: low FODMAP (IBS), nutrition (IBD) etc
- Therapy: CBT (IAPT), addictions support, marital etc
- … THEN a discussion (unless risk) about medications.

* 150 mins per week of gentle / moderate or 75 mins of vigorous or COMBO. No need 4 Gym

How these 8 help the planet

- Exercise: ↓ fuel consumption
- Diet: fruit, vegetables, fish
- ↑ Sleep is low or no cost
- ↓ Big tobacco, narcotics
- ↓ Alcohol-related harms
- ↑volunteer, soc enterprise

- *"do only what's needed… & no harm"*(Wales)
- ↓unsustainable consumption, individual /pop
- Reducing health service use, impact on others

What we do now (cigs in SMI) doesn't work

- Psych wards screen (no intervene)
- CH 200 referrals to SSS: 4 finished
- On wards, slow to prescribe NRT
- Institutional "fresh air breaks"
- Psychiatrists don't do Varenicline
- At clinics (post DC), we don't ask about factors maintaining a quit
- Poor data exchange & "can't someone else do it?" attitudes
- No Trust pays peer support workers

Mental disorders in global context

- Global disease burden: Malaria 4.6%, HIV/ AIDS 3.3%, TB 2.0% but mental disorders = 7.4%
- Of healthy years lost as disability, mental dis = 32%
- In 20 years from 1990, depression ↑ by 37%
- ↑ Child rates of mental disorders, pre-Covid19
- Covid19 has revealed and exacerbated inequalities
- ↑ FX of Dementia: vascular & alcohol- are preventable
- Poor data: gender-based violence, LGBT+ experiences
- Money does not follow need, large treatment gap

The economics of prevention

- $BCR_1 = \frac{OC_{control} - OC_1}{IC_1 - IC_{control}}$ *output cost: control V case* / intervention cost: case V control
- $IC_{control}$ is usually £0 but there are considerable costs of doing nothing e.g.

The costs to other pupils / teachers / siblings / parents of a disruptive and/or ill or self harming pupil in a classroom… costs of a completed suicide.

These apply to psychosis, dementia, physical illness & Prem deaths in SMI, ID, addictions, PD, depr…

Look to Scotland, PH Scotland

1. Vibrant, healthy, safe communities
2. … flourish in early years

(Marmot's "best start in Life")

3. Good mental well-being
4. Reduce harms from alcohol, tobacco & drugs
5. Sustainable economy plus Equality of outcomes
6. Eat well, healthy weight management: stay active

What do we need to do?

1. For trainees New Curriculum; influence other groups
2. At consultant level, refocus SMI health: cigs, other Pv?
3. Every MH Trust needs PMH leads: protected PA(s)
4. Leadership on Prevention within every faculty
5. Single, unifying RCPsych stance on Poverty-Inequality
6. RCPsych leadership on resourcing Prevention, because it works, and "following the science" – we cannot wait for NHS-D, PHE, ONS to package data
7. New leaders: PMH + Sustainability = Prevention