



Primary Care
Cardiovascular
Society

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the best in cardiovascular health



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State of the nation: Cardiovascular disease in Wales

Jonathan Goodfellow

National Clinical Lead
Wales Cardiac Network
Wales NHS Exec

Declarations of interest



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- None

PCCS WALES CONFERENCE

Statistics



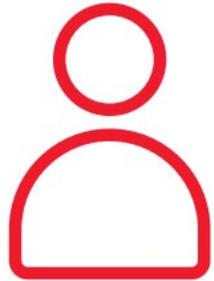
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Around

340,000

people are living with heart and
circulatory diseases in Wales



Heart and
circulatory
diseases kill
1 in 4 people
in Wales

The total annual
healthcare cost
of heart and
circulatory disease
in Wales is



£622
MILLION

Age-standardised mortality rate per 100,000 people



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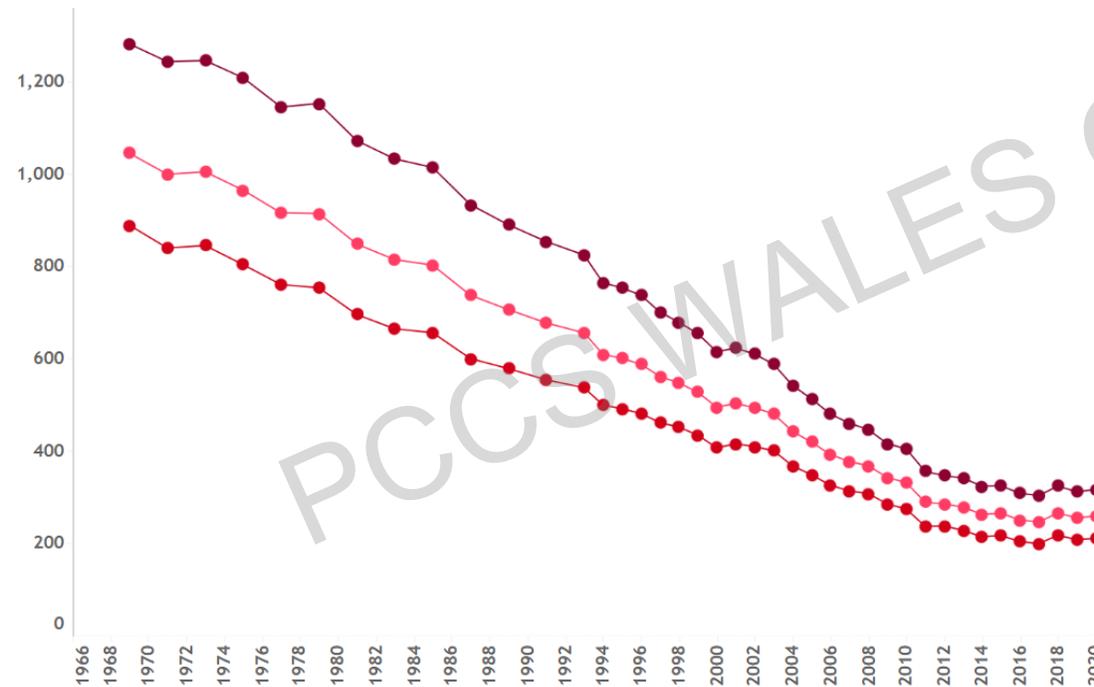


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This graph shows the change in death rate over time. Death rates have fallen more quickly than the actual number of deaths because people in this country are now living longer.

Explore the data using the filters below. Scroll over each point on the graph to see the age-standardised death rate.



Pre-pandemic

- Dramatic fall in ASMR has plateaued since 2011¹
- Due to slowing of CVD incidence decline^{1,2}
- Unclear cause but:
 - Rise in obesity and type 2 DM, may be cancelling out benefit in decline of smoking and BP prevalence
- **Cost next 10 years £54 Billion³**

COVID pandemic⁴

- Worse outcomes from Covid-19 for those with pre-existing CVD
- Excess death rates have persisted since pandemic and appear to be largely driven by excess CVD deaths

ASMR, age-standardised mortality rate; BP, blood pressure; CVD, cardiovascular disease; DM, diabetes mellitus.

1. British Heart Foundation. Death rates – over time. Available at: <https://www.bhf.org.uk/what-we-do/our-research/heart-and-circulatory-diseases-in-numbers/death-rates-over-time>. Accessed April 2023;

2. British Heart Foundation. UK Factsheet – April 2023. Available at: <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>. Accessed April 2023;

3. Collins et al., PLoS One 2022; <https://doi.org/10.1371/journal.pone.0268766>;

4. British Heart Foundation. Tipping Point. Available at: <https://www.bhf.org.uk/what-we-do/policy-and-public-affairs/tipping-point>. Accessed April 2023.

Post-covid pandemic



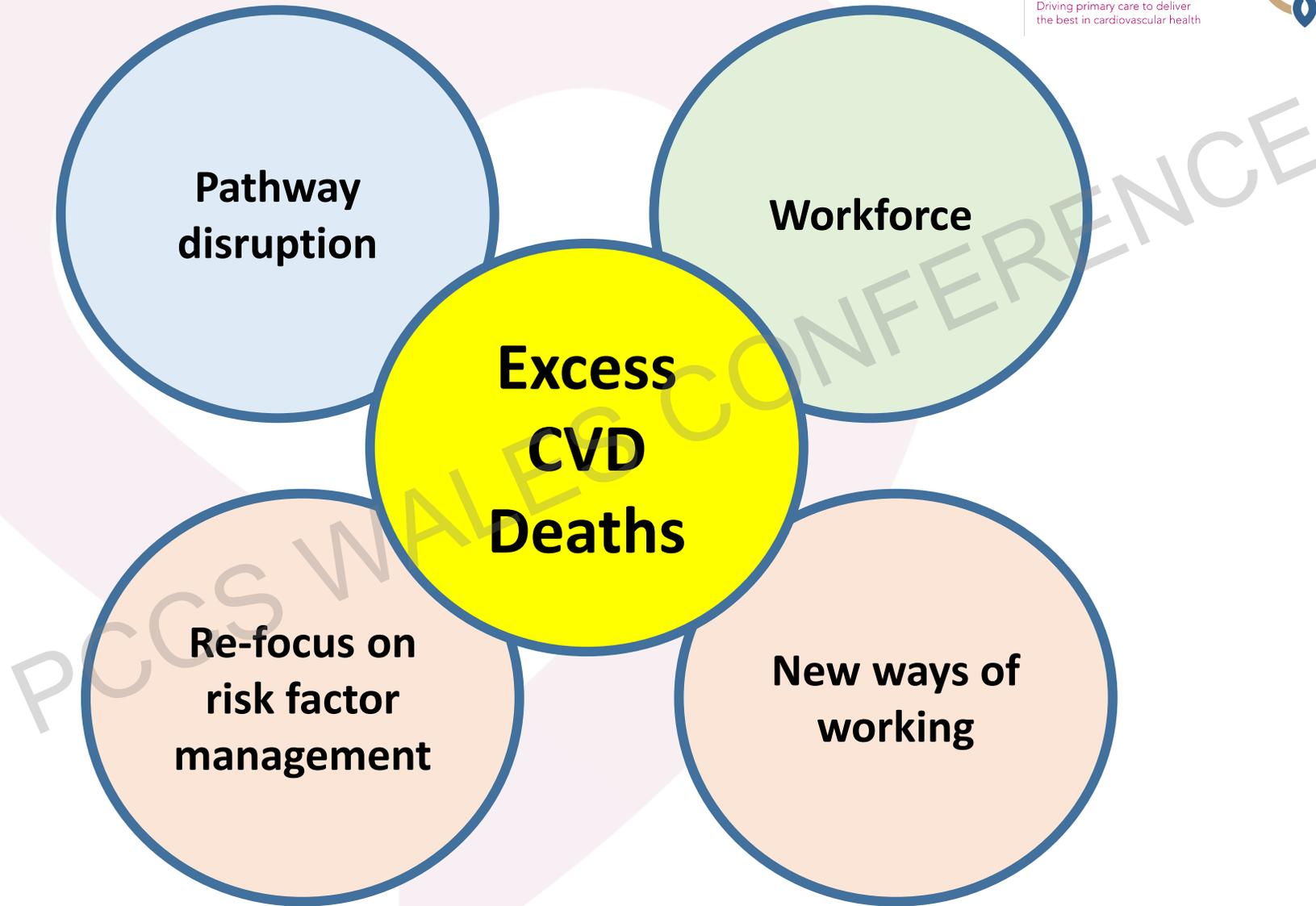
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Excess deaths persisted throughout 2022



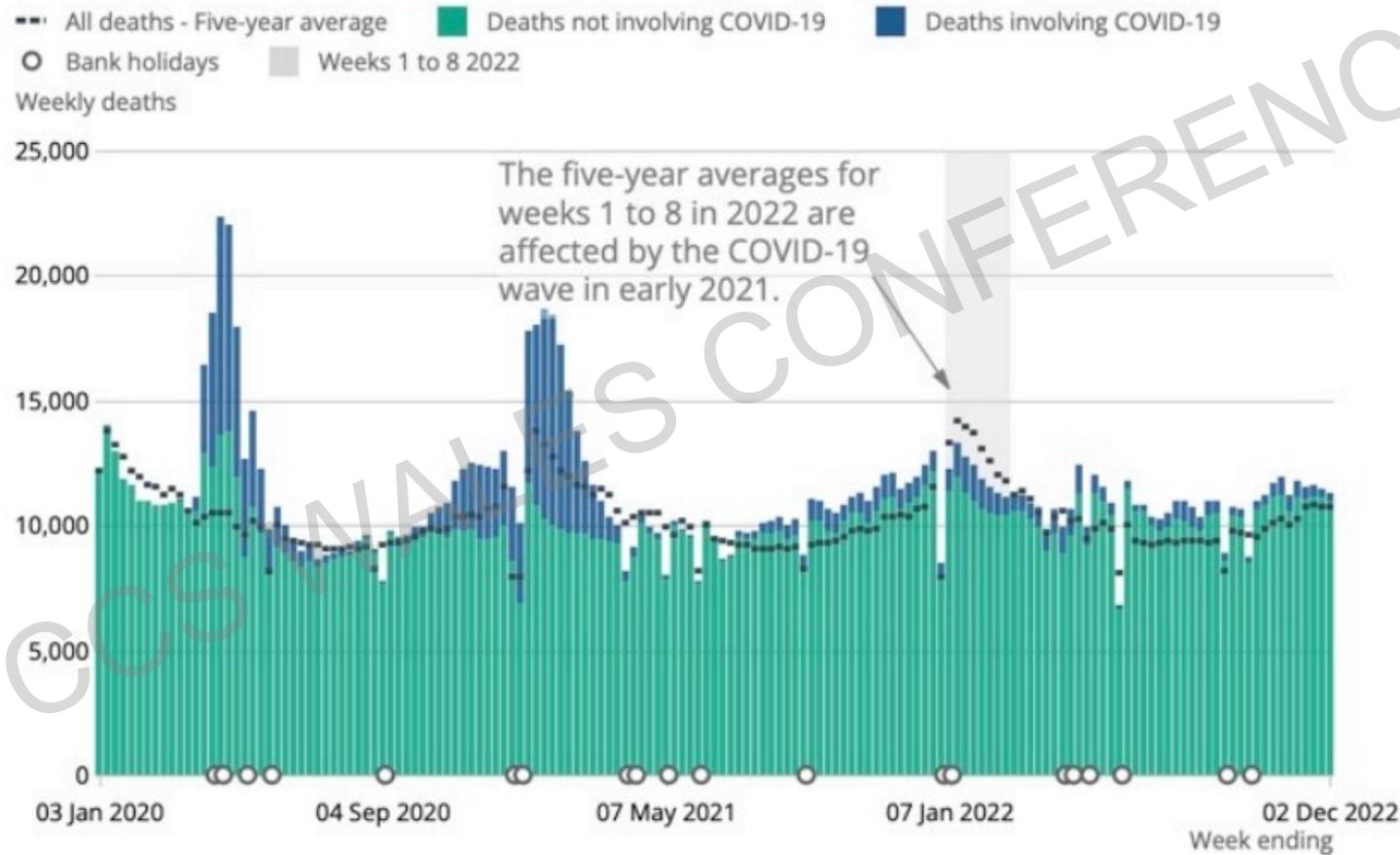
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Office for National Statistics

Data: OHID; Analysis: LCP

Excess deaths



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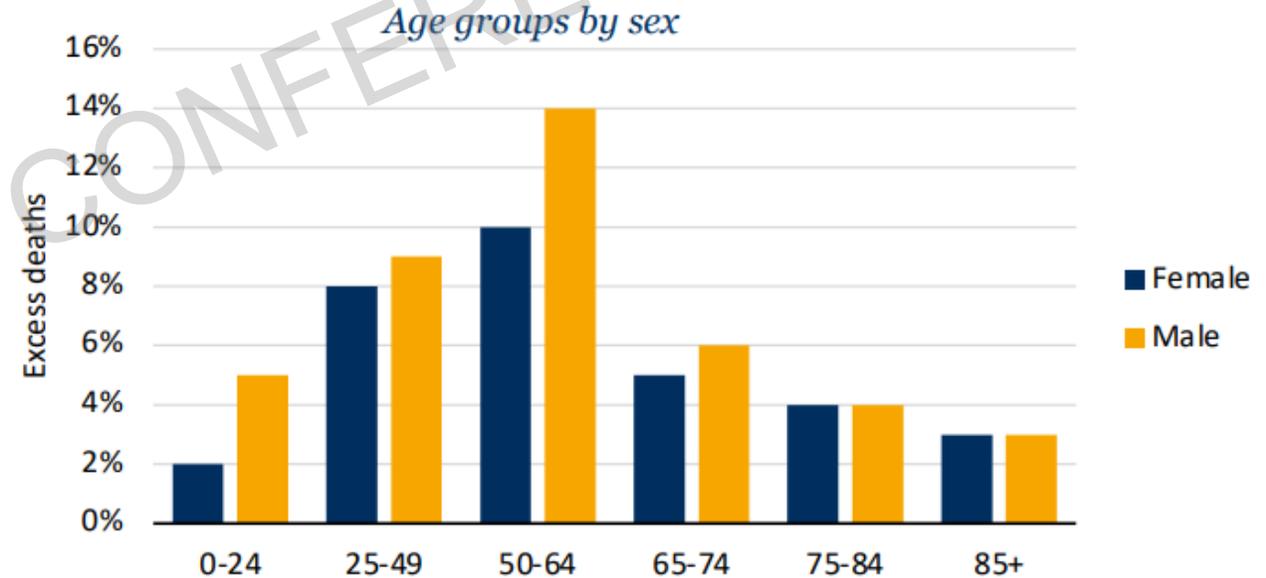
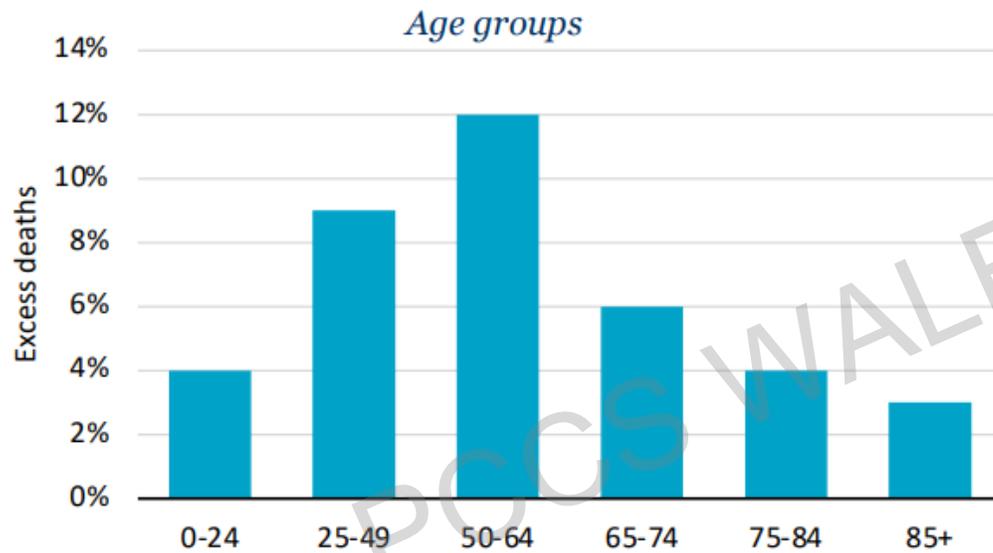
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April 21 – November 22



Data: OHID; Analysis: LCP

Excess deaths



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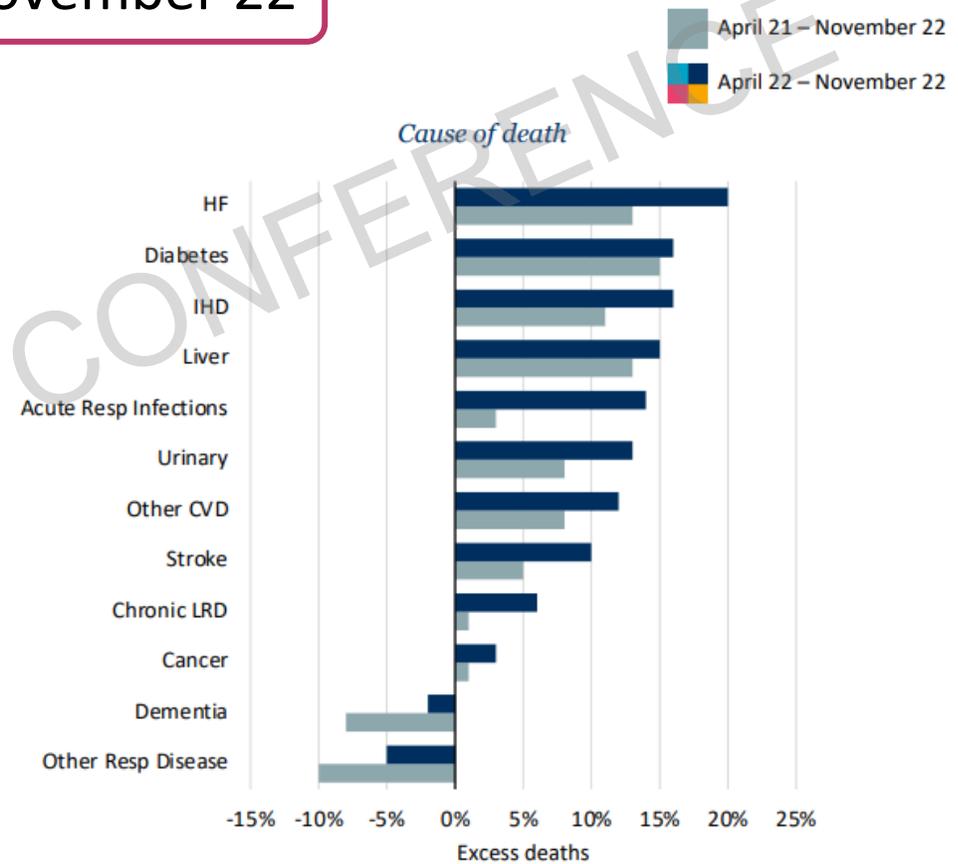
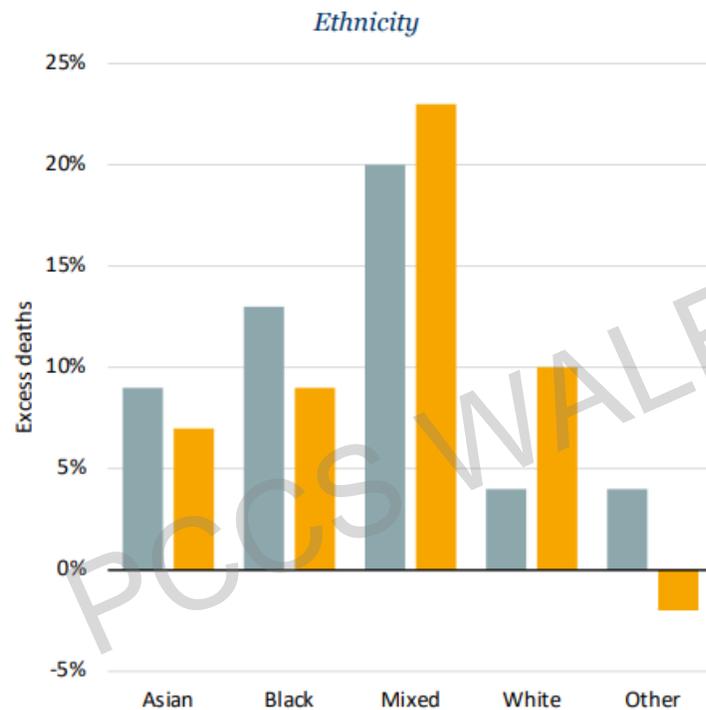
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April 21 – November 22



Data: OHID; Analysis: LCP

Excess deaths post-pandemic



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- The persistent excess deaths observed appears to be driven by premature CVD mortality
- Unwarranted variation linked to ethnicity, deprivation, and other factors
- Likely that whole pathways are disrupted, resulting in delays to diagnosis, and treatment
- **Risk factor control increased importance**

IHDs were leading cause of excess deaths in Wales



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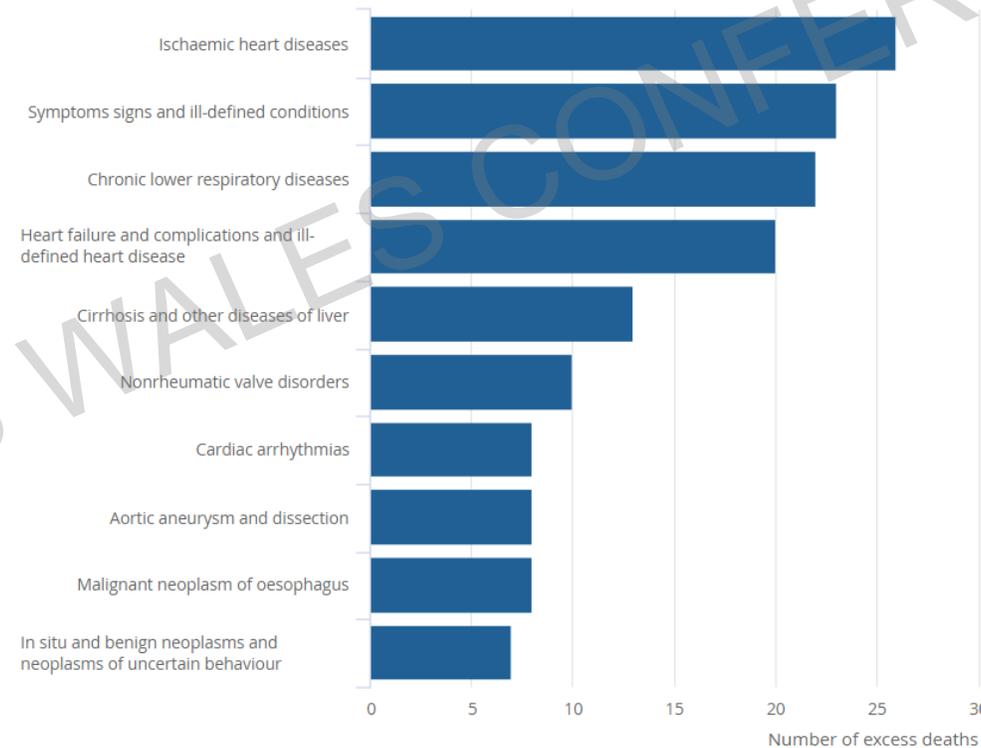


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Figure 7: In Wales, ischaemic heart diseases were the leading cause of excess death in February 2023

Number of excess deaths, compared with the 2017 to 2019, 2021 and 2022 five-year average, for selected leading causes of death, Wales, deaths registered in February 2023



IHDs, ischaemic heart diseases.

Office for National Statistics. Monthly mortality analysis, England and Wales: February 2023. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/monthlymortalityanalysisenglandandwales/february2023>. Accessed April 2023.

Post-covid pandemic



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**Pathway
disruption**

Workforce

**Excess
CVD
Deaths**

**Re-focus on
risk factor
management**

**New ways of
working**

Pathway disruption



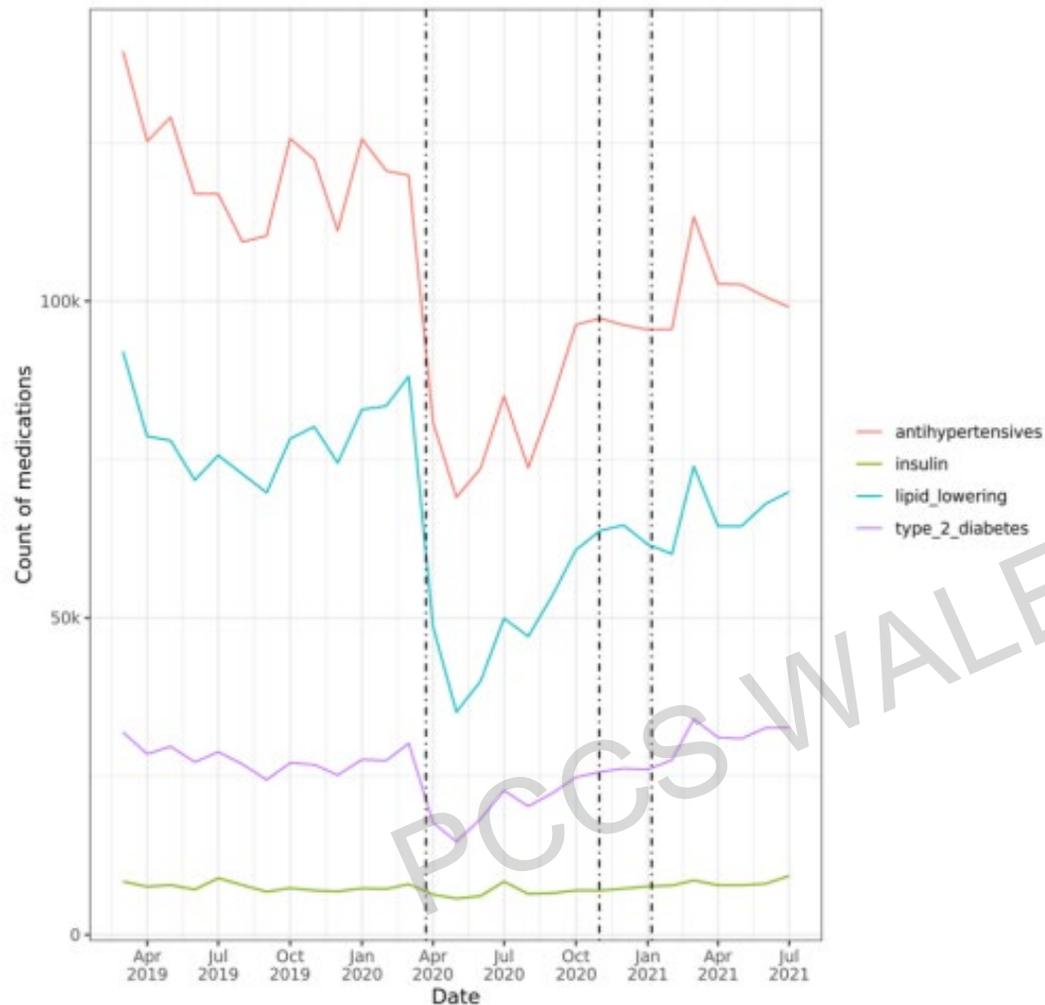
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IPPR analysis found:
470,000 fewer prescriptions of preventative CV drugs issued during lockdown²

30% drop in number of patients initiated on statin first time

16% drop in number of patients initiated on anticoagulants

If missing patients are not found, diagnosed, and commenced on treatment, IPPR forecast:

additional 12,000 heart attacks and strokes in England in next 5 years²

CV, cardiovascular; IPPR, Institute for Public Policy Research.

1. Dale CE, et al. The adverse impact of COVID-19 pandemic on cardiovascular disease prevention and management in England, Scotland and Wales: A population-scale analysis of trends in medication data. Available at: <https://www.medrxiv.org/content/10.1101/2021.12.31.21268587v2.full.pdf>. Accessed April 2023; 2. Institute for Public Policy Research. Without skipping a beat: The case for better cardiovascular care after coronavirus. Available at: <https://www.ippr.org/files/2021-03/without-skipping-a-beat.pdf>. Accessed April 2023.

Disruption to patient pathway



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- Changes in help-seeking behaviour
- Shift to digital first healthcare
- Reduced availability of cardiovascular services
- Lack of in person contact – feel irregular pulse, measure BP, take blood for cholesterol etc
- **Lost opportunities to prevent heart attack and stroke**

Impact of Lockdown on diagnosis



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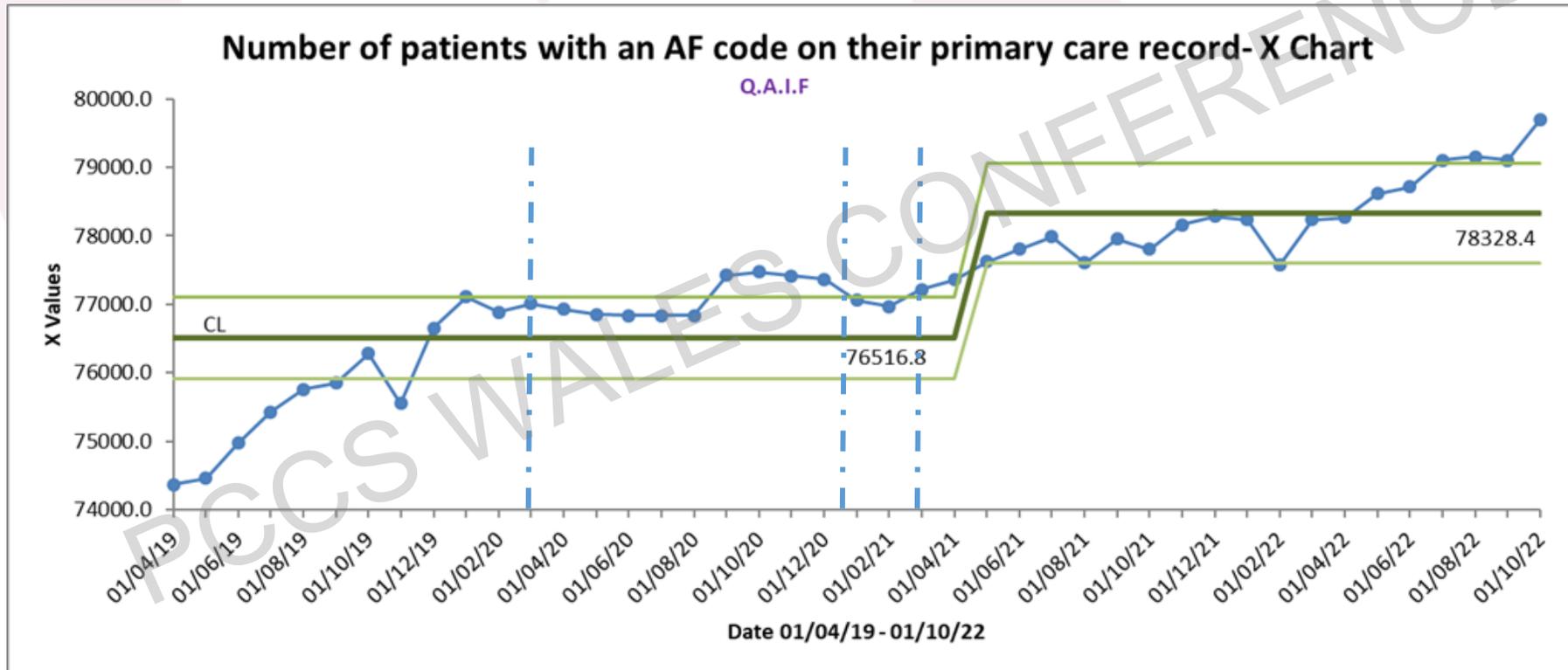
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New diagnosis of AF plateaued during lockdown in Wales



Post-covid pandemic



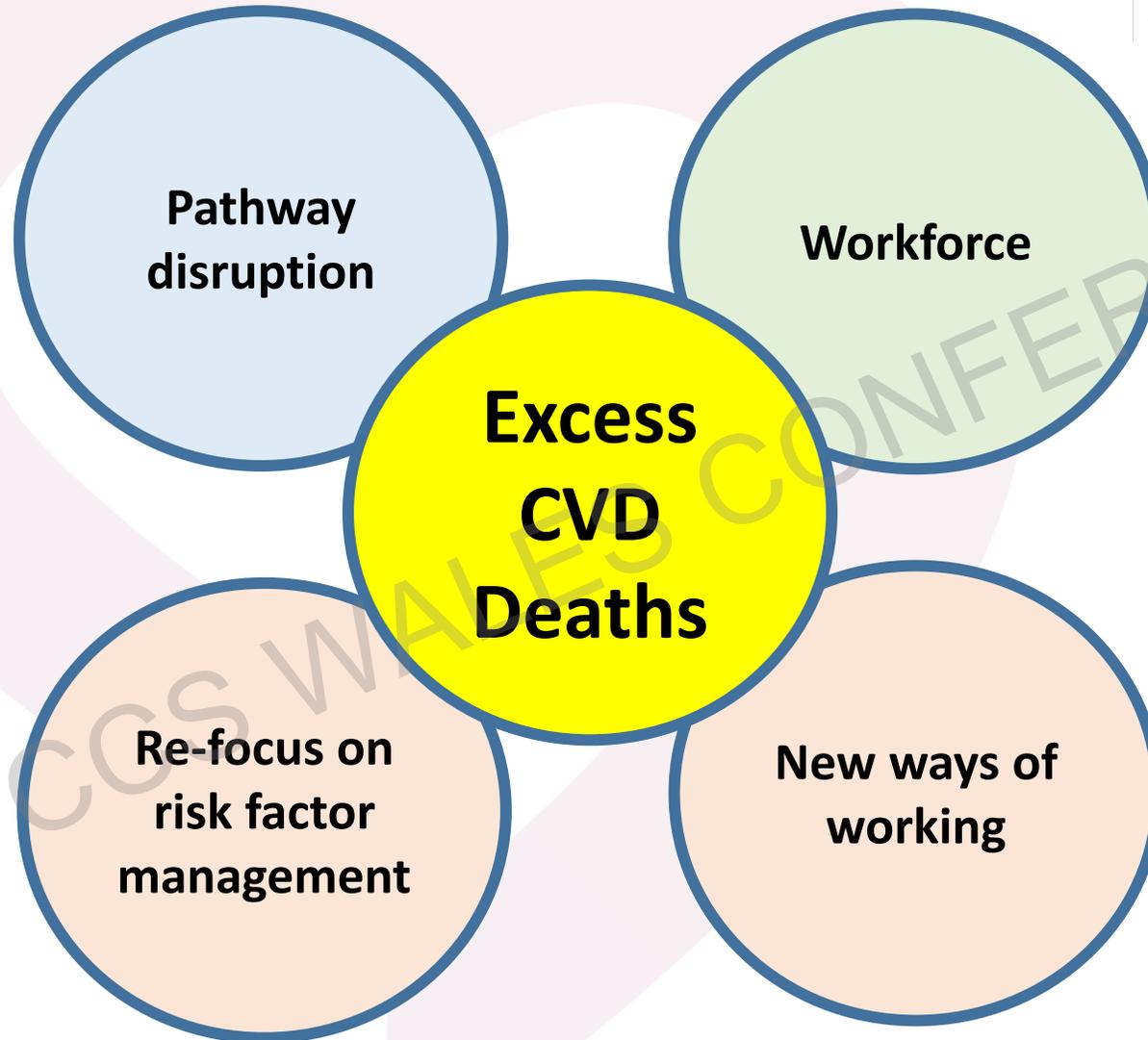
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Workforce



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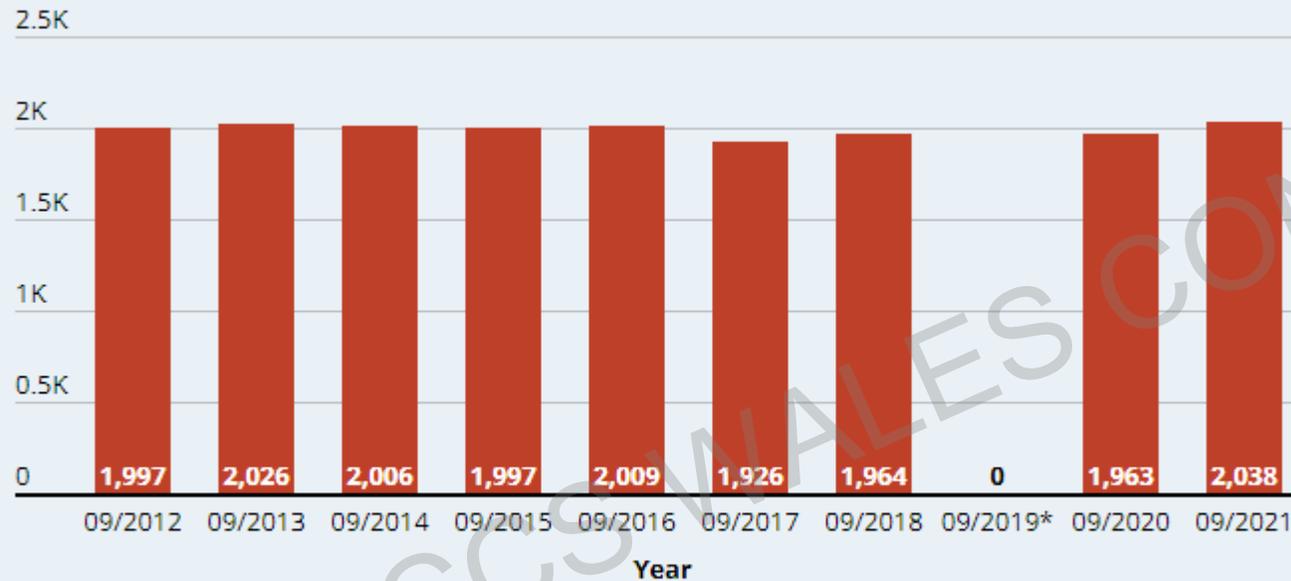
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Number of GPs, headcount



Source: *general practice workforce dataset, Welsh Government*

*data for 2019 was not collected due to changes in the reporting systems.

A fall of 15% in past 10 years

Approximately 2,000 GPs,
Locum, retainer, and salaried

Wales has highest percentage of GPs
over age 60 in the devolved nations

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- **Consultant cardiologists**
- DoH / BCS recommendation in 2005. Wales needed 53–84 cardiologists/million population¹
- Currently < 80
- **Cardiac Physiologists**
- Chronically understaffed
- Key professional group
- National plan to increase numbers by 200 over next 7 years
- **Advanced Nurse practitioners**
- **Prescribing pharmacists**

Demand has continued to rise
Referrals to secondary care up >20%
Backlog from pandemic

Post-covid pandemic



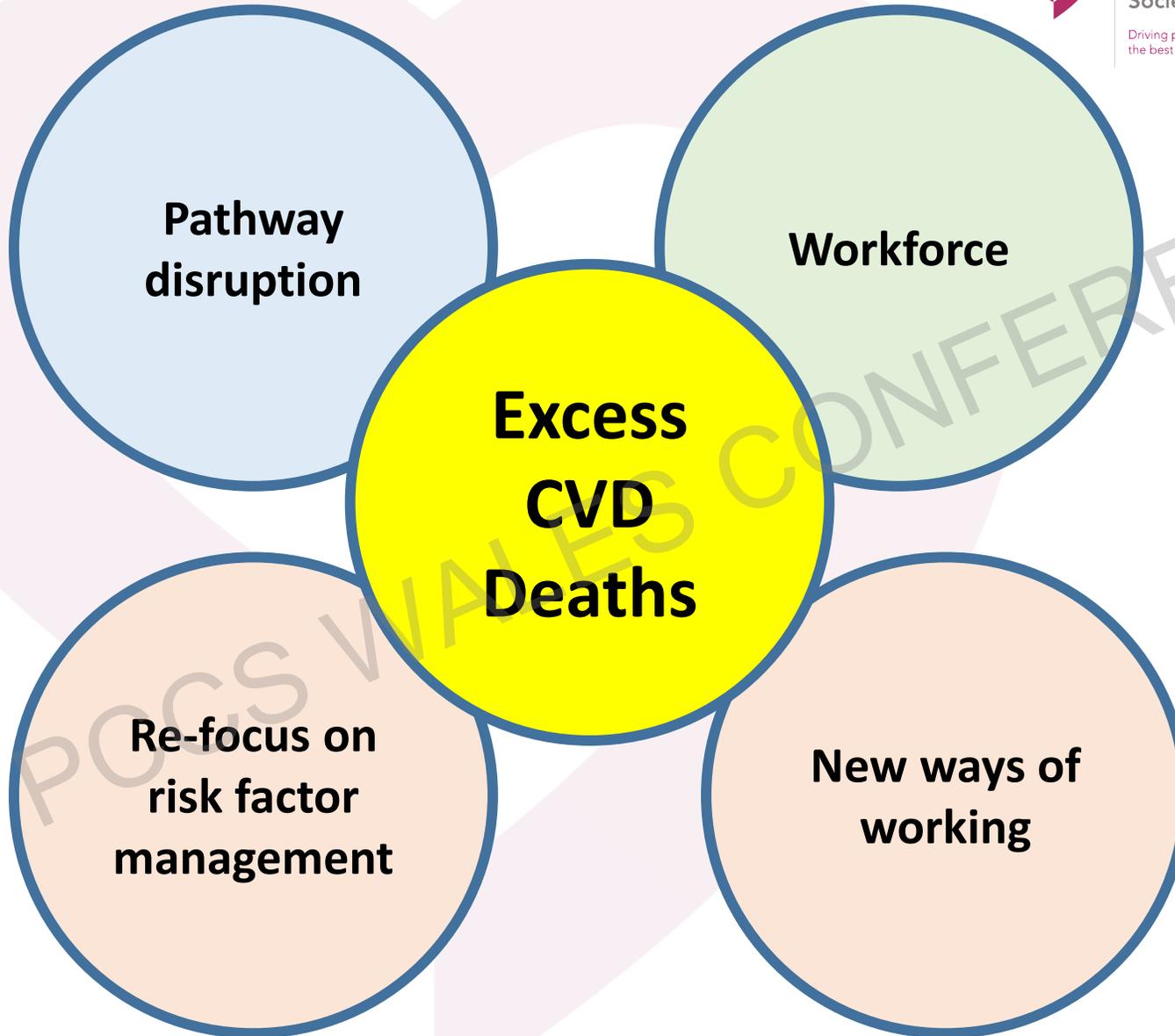
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Cardiovascular disease: risk assessment and reduction, including lipid modification

In development [GID-NG10178] Expected publication date: 17 May 2023 [Register as a stakeholder](#)

- Lower threshold for treating cholesterol



The evidence is clear, in our view, that for people with a risk of 10% or less over 10 years, statins are an appropriate choice to reduce that risk.

Paul Chrisp, director of
the Centre for Guidelines
at NICE

Risk Factors



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High Blood Pressure (Hypertension)

- High blood pressure is the leading modifiable risk factor for heart and circulatory diseases in Wales.
- It's estimated that around 700,000 adults in Wales have high blood pressure.
- More than 510,000 people are on their GP's hypertension register, suggesting that as many as 185,000 could be undiagnosed.

Prevalence

Diagnosed

515k

Expected

700k

Undiagnosed (Not on GP Register)

up to 185k

Around **50%**



of heart attacks and
strokes are associated
with high blood
pressure

GP, general practice.

1. British Heart Foundation Cymru. Wales Factsheet. February 2023. Available at: <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>. Accessed April 2023; 2. Wales – heart and circulatory disease statistics from the British Heart Foundation (BHF). Available at: <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics/local-statistics>. Accessed April 2023.

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Diabetes

- **More than 200,000** adults in Wales have been diagnosed with diabetes.
- Around 90 per cent of those diagnosed are living with type 2 diabetes and 10 per cent have either type 1 or rarer types.
- It's estimated that thousands more people across Wales are likely to have undiagnosed type 2 diabetes.
- Adults with diabetes are **2-3 times** more likely to develop CVD, and are **nearly twice as likely** to die from heart disease or stroke as those without diabetes



In the UK **one third**
of adults with diabetes
die from a heart or
circulatory disease

CVD, cardiovascular disease.

1. British Heart Foundation Cymru. Wales Factsheet. February 2023. Available at: <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>. Accessed April 2023;

2. British Heart Foundation. UK Factsheet. April 2023. Available at: <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>. Accessed April 2023.

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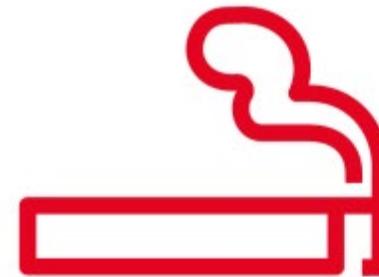
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High Cholesterol

- High blood cholesterol is a significant risk factor for developing heart and circulatory diseases.
- **More than 1 in 4 deaths** from heart and circulatory diseases in Wales are associated with high LDL (low-density lipoprotein) cholesterol.

Smoking

- **At least one in eight** (13 per cent) of adults in Wales smoke cigarettes - that's more than 330,000 adults.
- **Over 5,000** people in Wales die from smoking-related causes each year.
- Over **1,000 Welsh** deaths from heart and circulatory diseases can be attributed to smoking each year.
- Over **26,000 hospital admissions** for adults over 35 are attributable to smoking each year.



At least
13%
of adults in
Wales smoke

Risk Factors



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Overweight/Obesity

- One quarter (25 per cent) of adults in Wales have obesity and in addition more than a third (37 per cent) have a body-mass index (BMI) defined as overweight.
- More than a quarter (27 per cent) of children in reception year across Wales have a BMI defined as overweight or obese.
- In Wales around 1 in 6 heart and circulatory disease deaths are associated with a high body-mass index.

Diet and Exercise

- An estimated **44 per cent** of adults in Wales do not meet current physical activity recommendations (at least 150 minutes per week).
- **Only around 30 per cent** of adults in Wales consume the recommended five portions of fruit and veg per day.
- Around **one in six** adults (16 per cent) drink more than the weekly guideline amount of alcohol – but no level of consumption is without risk.

Cardiovascular Atlas of Variation

Part of a Value-Based
Cardiovascular Care
Programme for Wales

Produced by the Cardiovascular
Atlas of Variation Sub Groups on
behalf of NHS Wales



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Cardiovascular Atlas of Variation 2019

Risk factors

Health Maps search by Cluster

Deprivation (WIMD)

ACS

AF

HF

Public Health Wales. Cardiovascular Atlas of Variation. March 2019. Available at: <https://executive.nhs.wales/networks-and-planning/wales-cardiac-network/cardiac-network-documents/cardiovascularatlasofvariation-march2019-pdf/#:~:text=The%20aim%20of%20publishing%20the,of%20overuse%2C%20underuse%20or%20both>. Accessed April 2023.

Post-covid pandemic



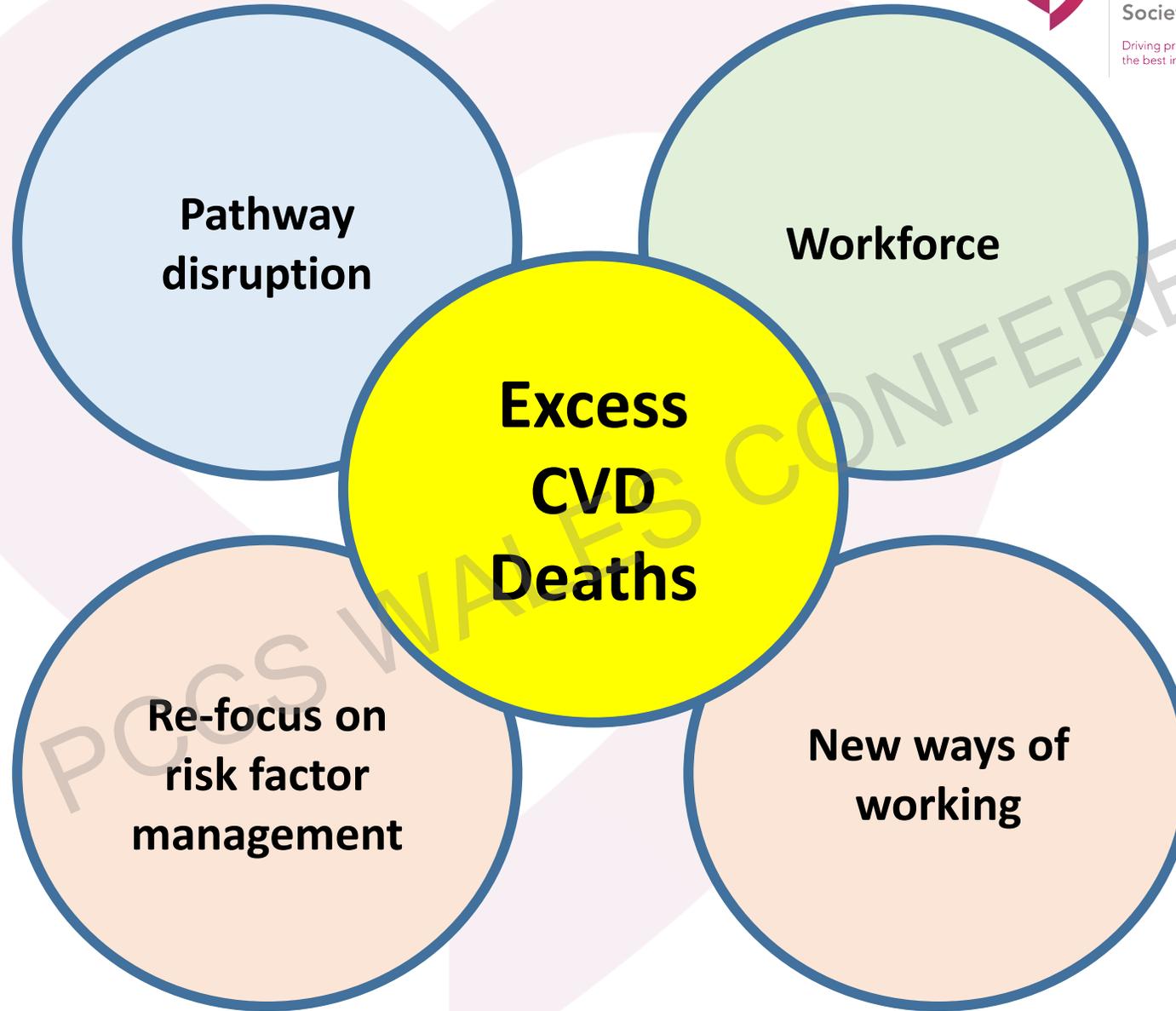
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New ways of working



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National priority pathways

- Co-production with patient/public panels, primary care/secondary care
- Enhanced triage of referrals from primary care
- More advice/guidance (within 24hrs)
- Test only
- Reduced low value investigations
- See those at greatest need first



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