National Update: Scotland

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LJMU Drug-Related Deaths Conference
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Public Health Scotland

National Update: Scotland

Drug-Related Death (DRD) trends in Scotland

PHS-led responses to 3 key themes

1. Emergence of novel synthetics in Scotland
2. Ongoing role of opioids in DRDs
3. Increase in cocaine-related deaths

Sources of Scottish DRD data

National Records of Scotland

Registration | Records and archives | Statistics and data | Learning and events

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Drug-related deaths in Scotland, 2024

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Contents

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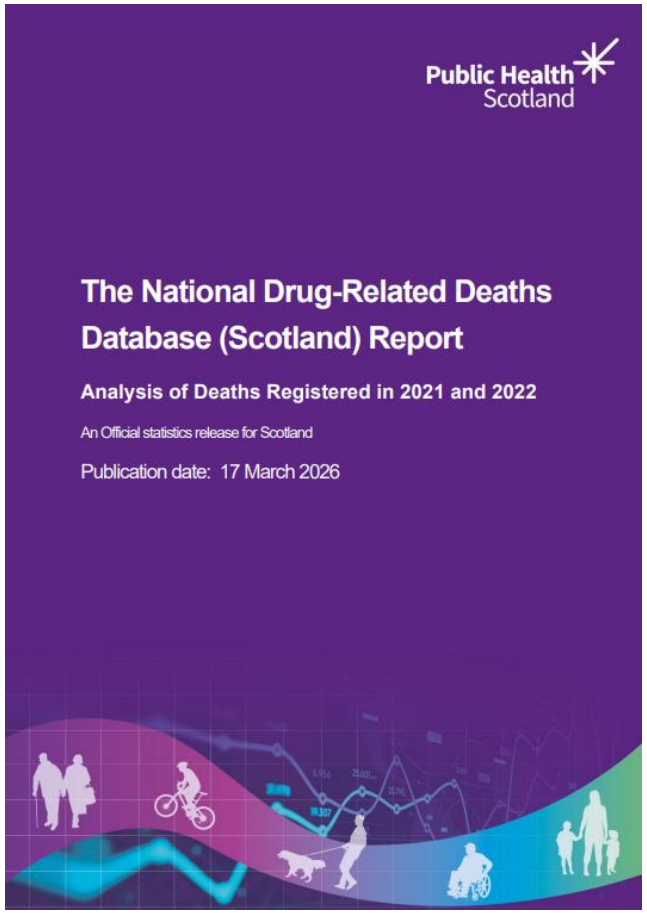
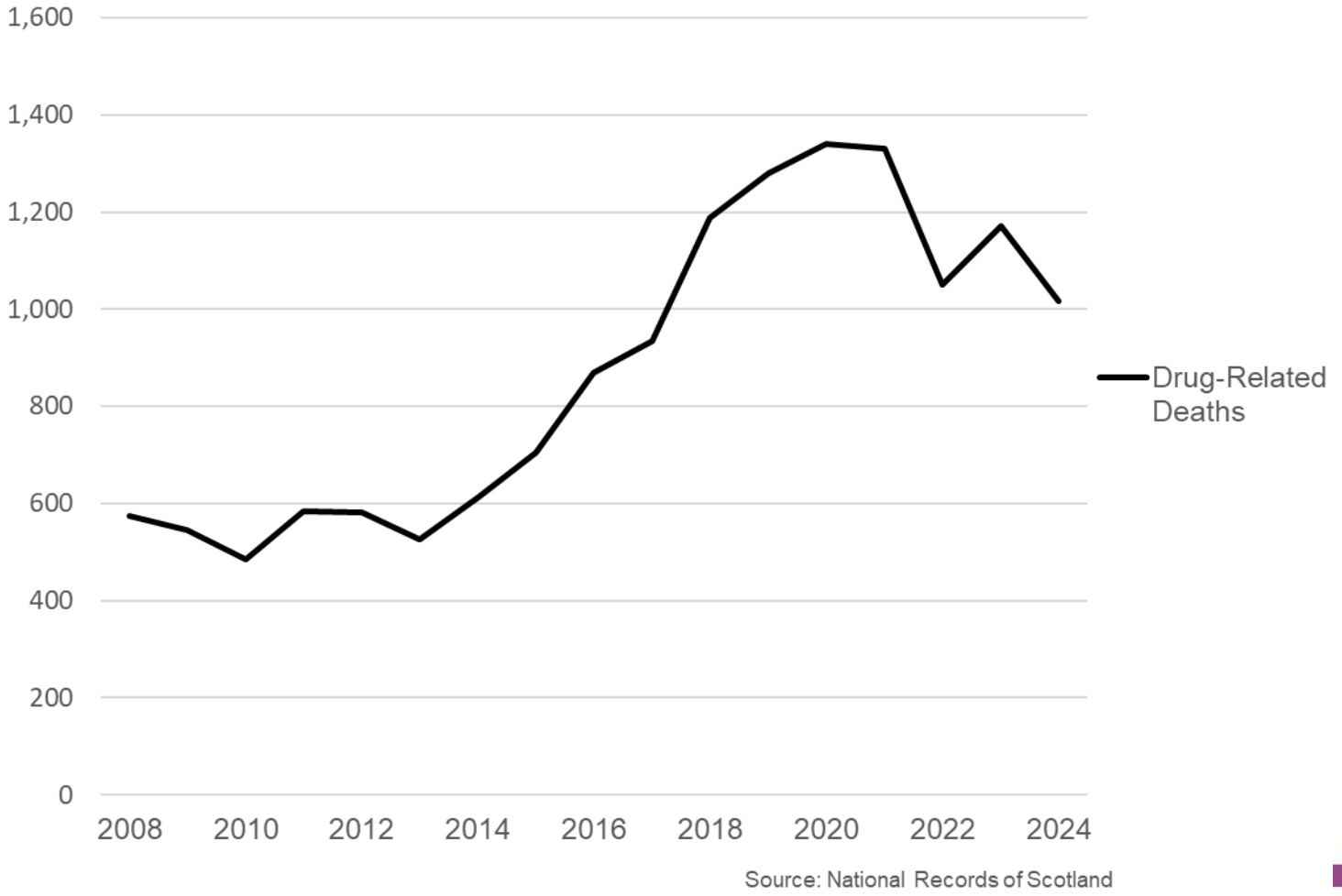
Main Points

- In 2024, there were 1,017 drug misuse deaths registered in Scotland, a decrease of 13% (155 deaths) compared with 2023.

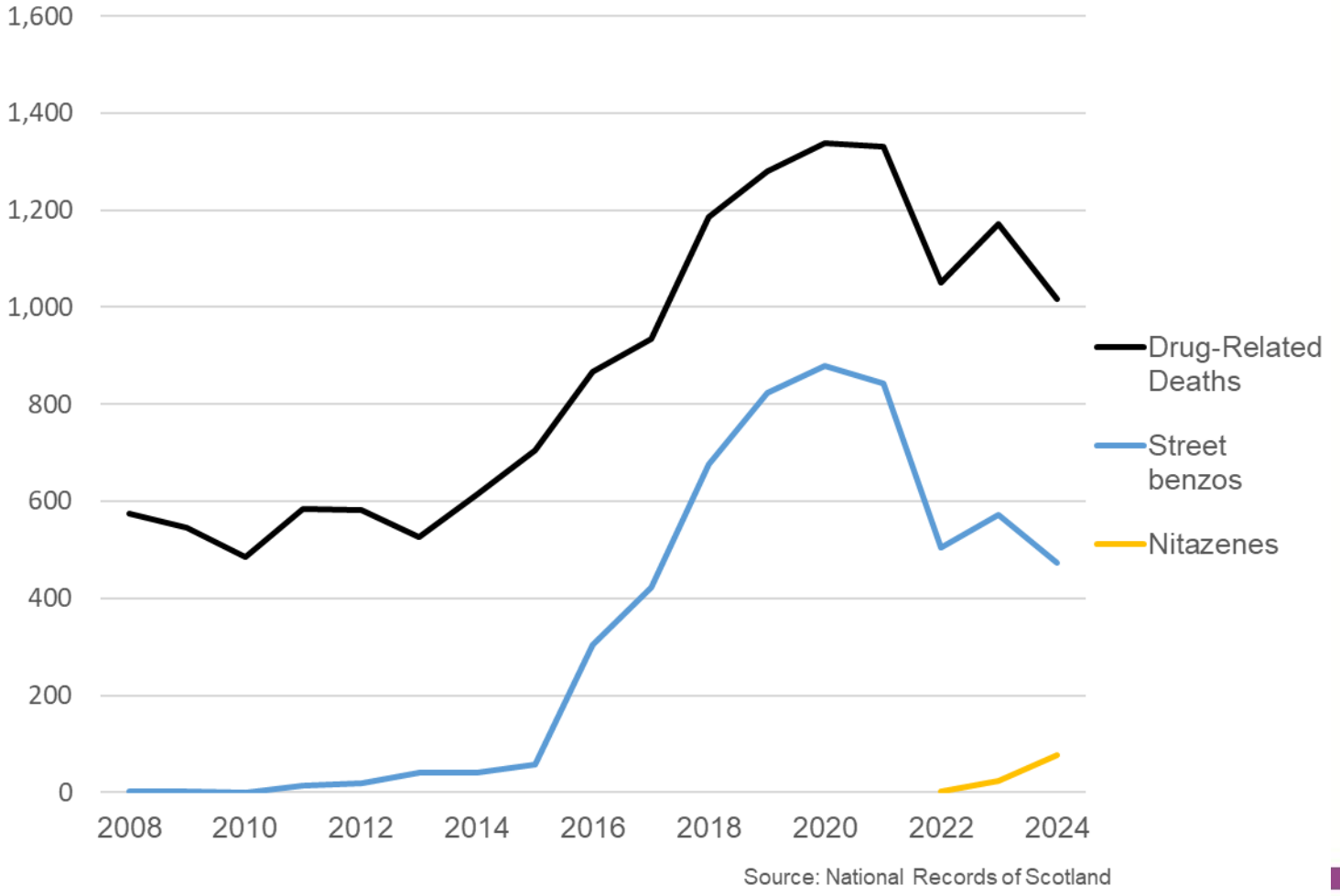


DRDs in Scotland



- Year-on-year increase throughout 2010s
- Peaking at 1,339 in 2020
- Down to 1,017 in 2024
- Remains highest DRD rate in UK/Europe
- Major public health issue

Emergence of novel synthetics in Scotland



- Street benzos emerged in early 2010s
  - 2015: 8% of DRDs
  - 2020: 66% of DRDs
  - 2024: 47% of DRDs
- Nitazenes emerged in 2022
  - 2024: 7% of DRDs

Widening access to timely data for DRD prevention

Reflections on emergence of street benzos led to:

Development of early warning system

- Developed from COVID impact report (2020)
- Rapid Action Drug Alerts and Response (RADAR) launched in 2022

Drug Death Reporting SLWG (2021)

- Multi-disciplinary assessment of NDRDD reporting
- High latency in local DRD review/reporting due to:
  - Inconsistencies in NHS Board access to data
  - Slow pace of data flows to NHS Boards
- National DRD Data Co-Ordinator appointed in 2022

Improving toxicology data flows

Rapid access to post-mortem toxicology data identified as key priority

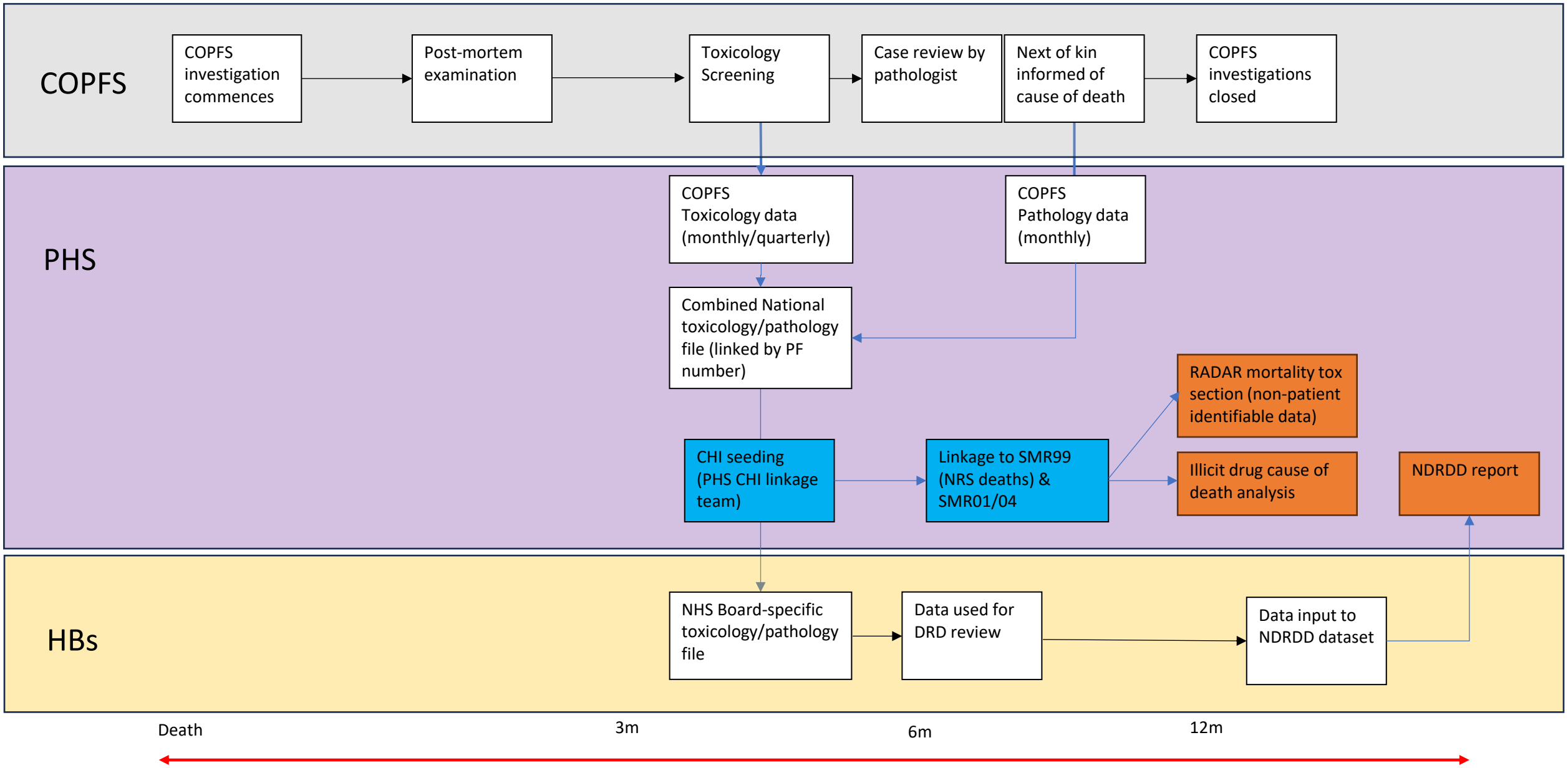
Benefit:

Improved understanding of how drug toxicity and polysubstance use contribute to risk environment in as real time as possible to inform preventative actions

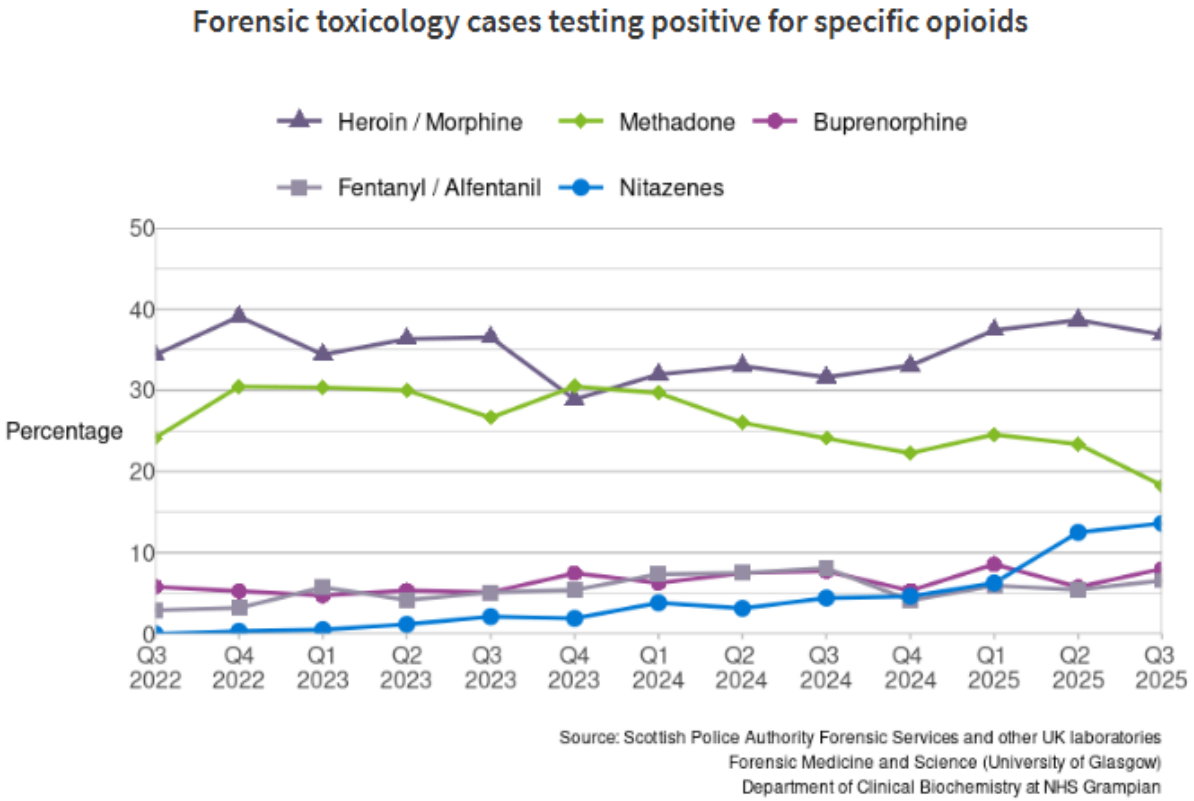
Enablers:

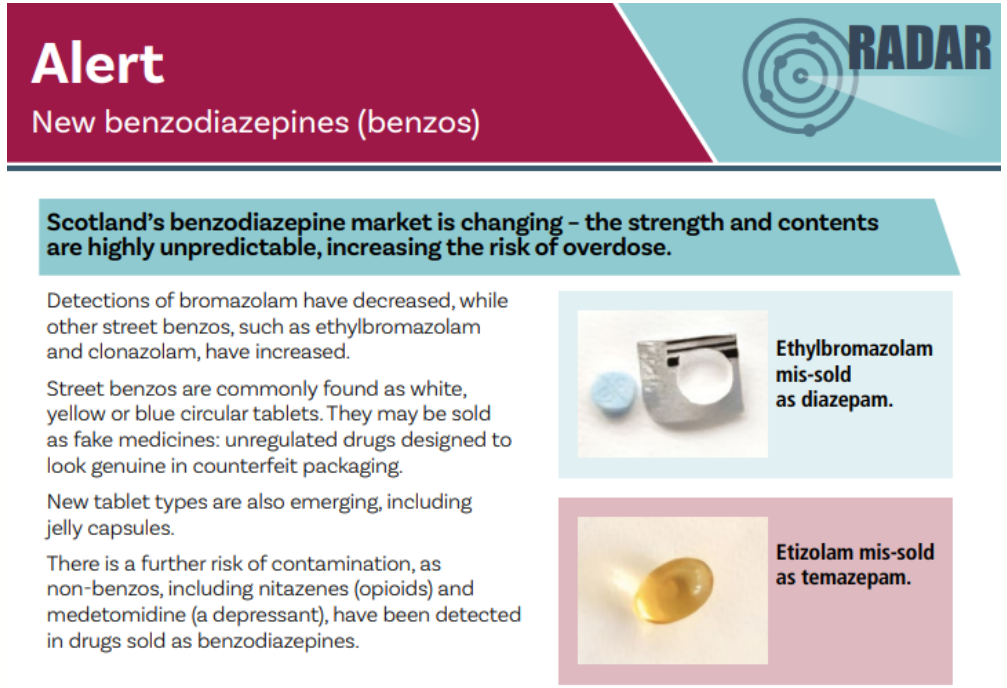
- Routine process for all suspected DRDs
- Comprehensive standard ‘panel’ of drug tests
- Centrally commissioned by Crown Office
- Two centres (Glasgow, Aberdeen)
- Positive stakeholder relationships

Crown Office and Procurator Fiscal Service data on Drug-Related Deaths – Data Flow Diagram

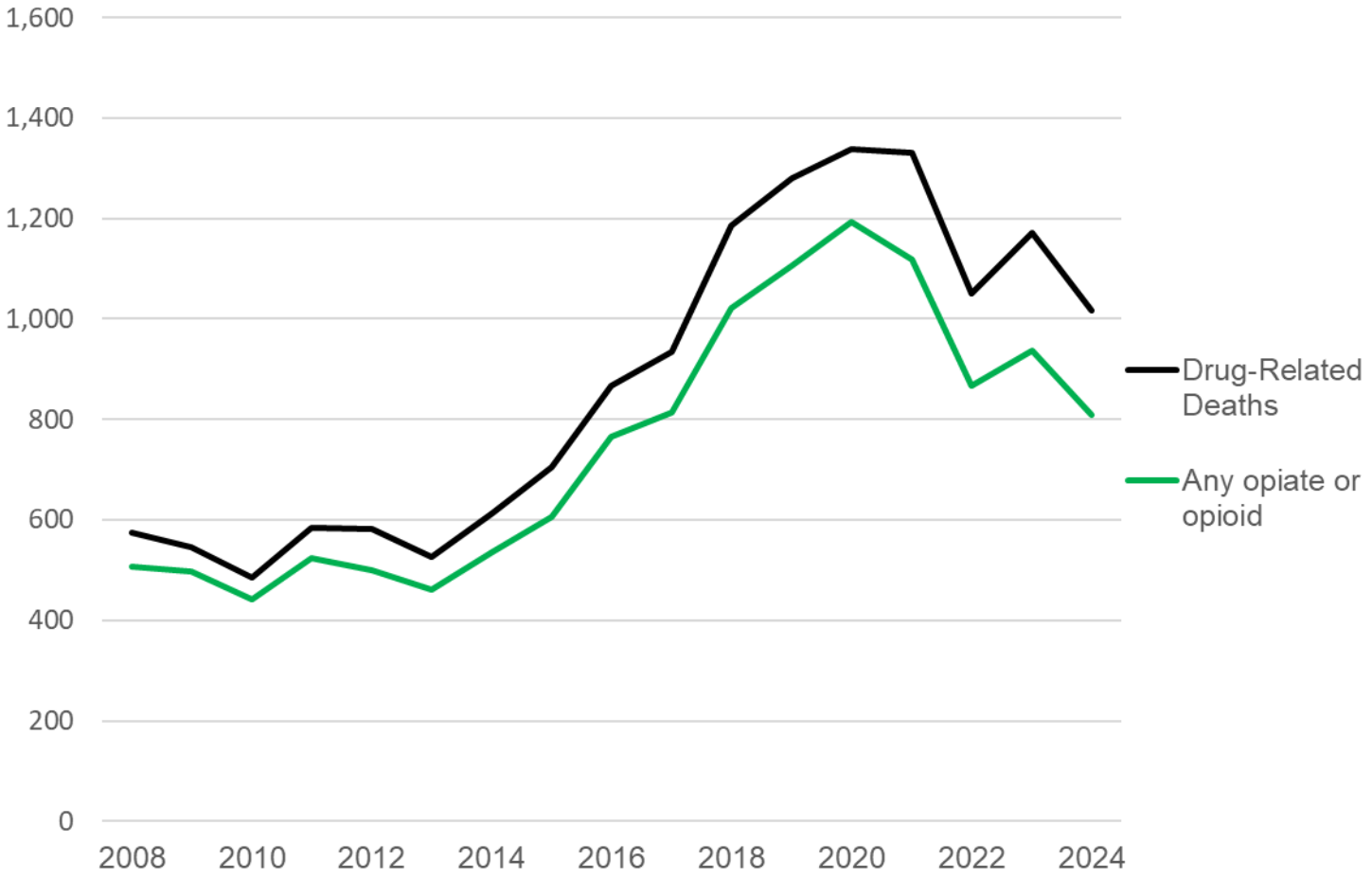


RADAR early warning system





Ongoing role of opioids in DRDs



Opiate/opioid implication

- 2008 to 2020: 85% to 91%
- 2021 to 2024: <85%

- 2023 & 2024: 80%

Expanding the evidence base for DRD prevention

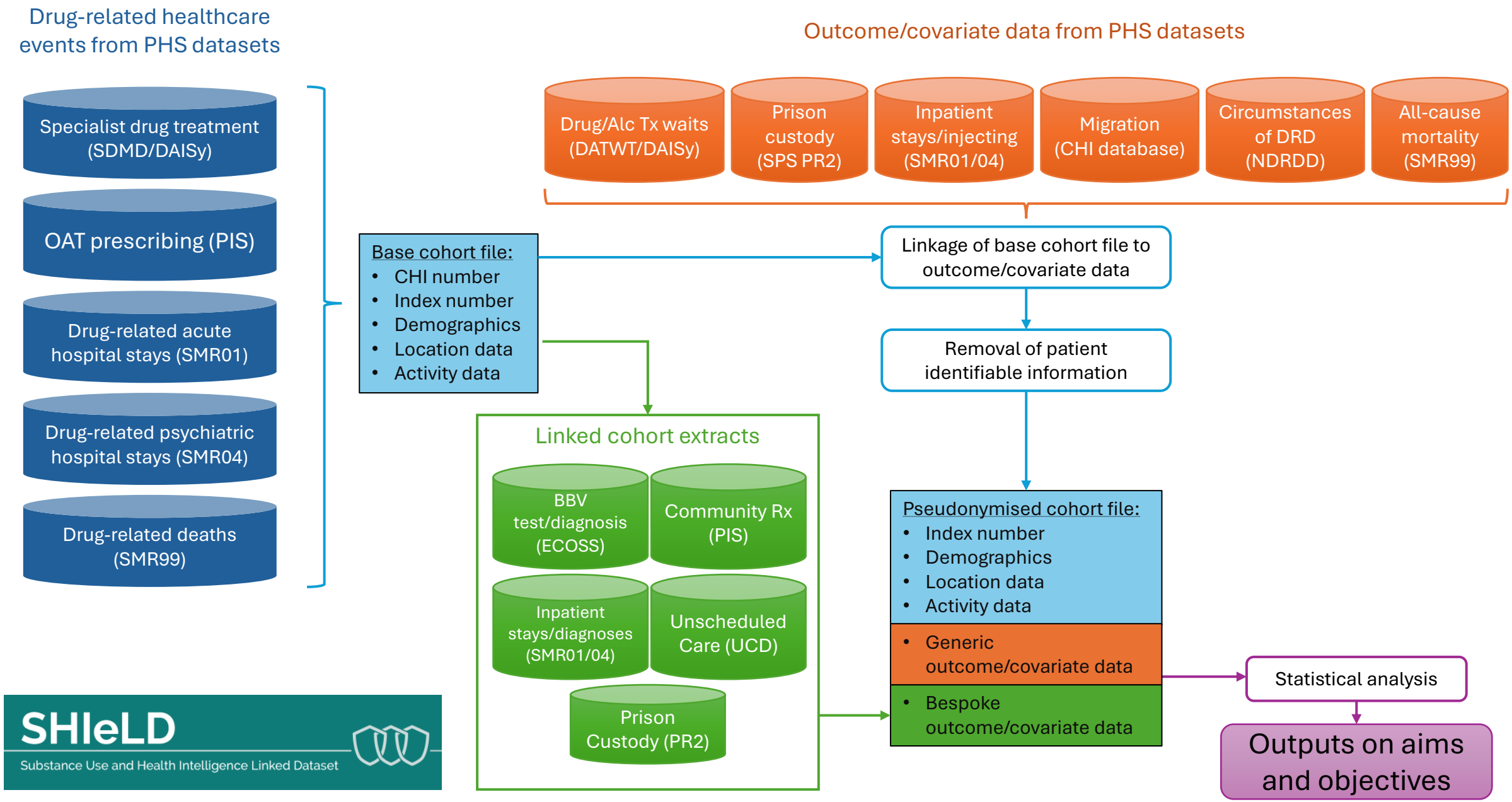
- 2017: ISD data linkage for SDF-led project on senior drug dependants
- 2019: PHS began work on linked data asset for problematic drug use

SHIeLD
Substance Use and Health Intelligence Linked Dataset

Purposes:

1. Estimating size and composition of the population with problematic drug use
2. Understanding morbidity and mortality among people with problematic drug use
3. Assessing the impact of specialist drug treatment and care

Substance Use and Health Intelligence Linked Dataset (SHIeLD)

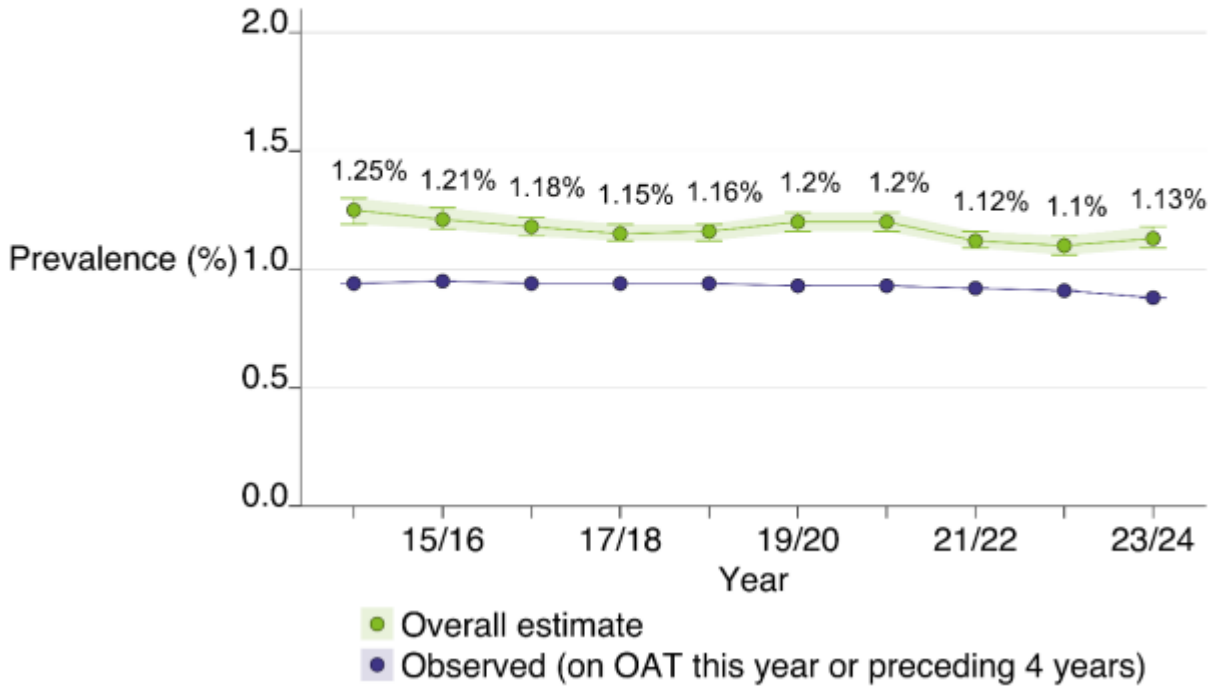


Opioid prevalence

- PHS/UoB/GCU collaboration
- Bayesian MPEP statistical model (Markoulidakis et al, 2024)
- Annual period prevalence estimate
- Based on linkage of:
  - OAT prescribing data
  - Drug-related hospital admissions
  - Drug-related deaths

- Slight reduction in opioid dependence from 14/15 (47.7K) to 23/24 (43.6K)

Figure 1: Estimated prevalence (%) of opioid dependence among the population aged 15-69 years in Scotland; 2014/15 to 2023/24



Evaluating the impact of Public Health interventions in reducing harms related to Substance Use in Scotland (EPHeSUS)

- Led by Glasgow Caledonian University, in collaboration with University of Bristol and PHS
- 2019 to 2024

Aim:

- Use linked and unlinked administrative data to measure the risks of mortality related to problem drug use in Scotland and determine to what extent specific interventions are protective against drug-related deaths.

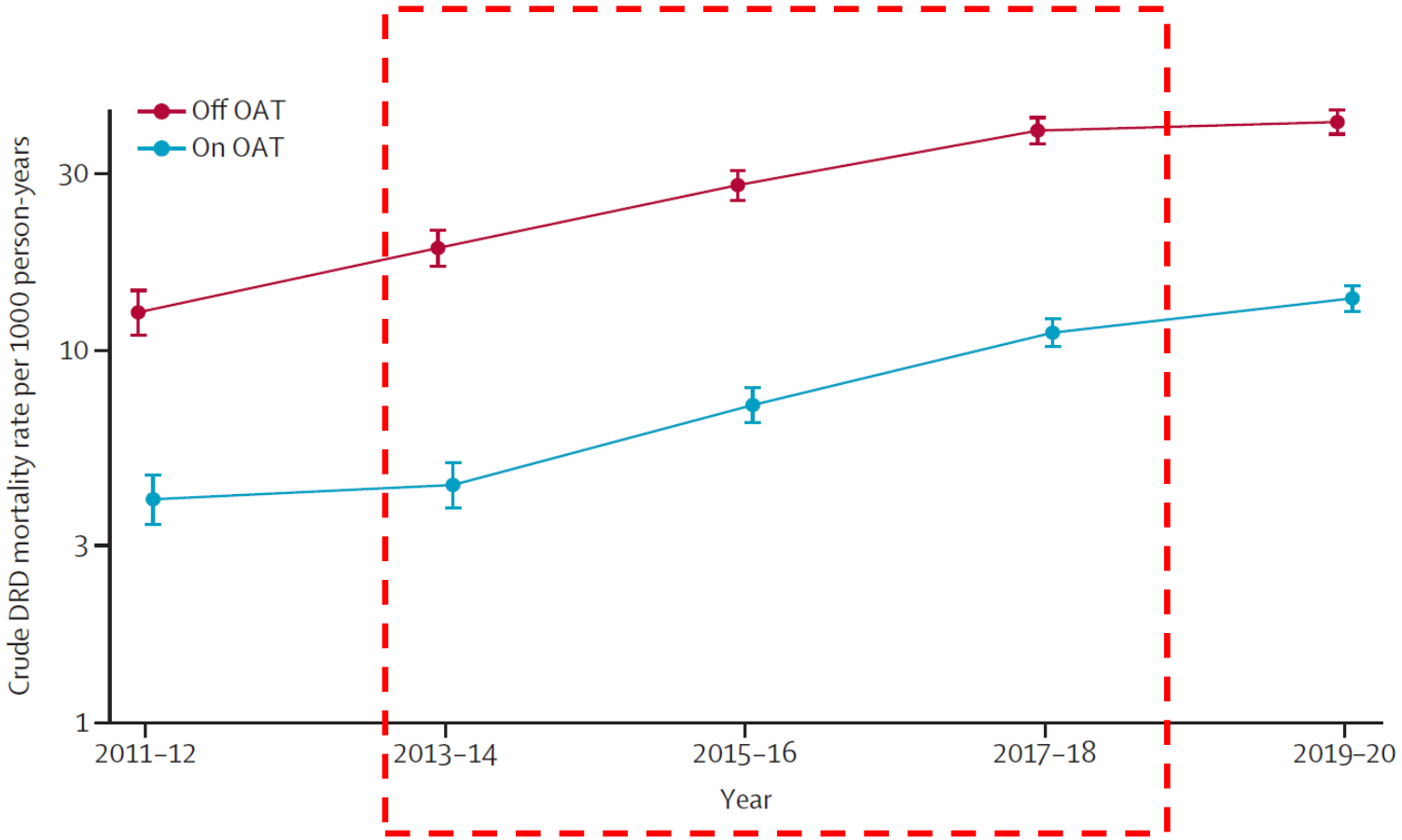
Initial focus:

- Evaluate impact of Opioid Agonist Therapy (OAT) in period when Scotland's DRDs more than doubled
  - OAT mortality study
  - Impact of COVID-19
  - Co-prescribing

University of BRISTOL

GCU Glasgow Caledonian University

Crude drug-related death rates (log scale) among those prescribed OAT in Scotland by OAT status, 2011-2020



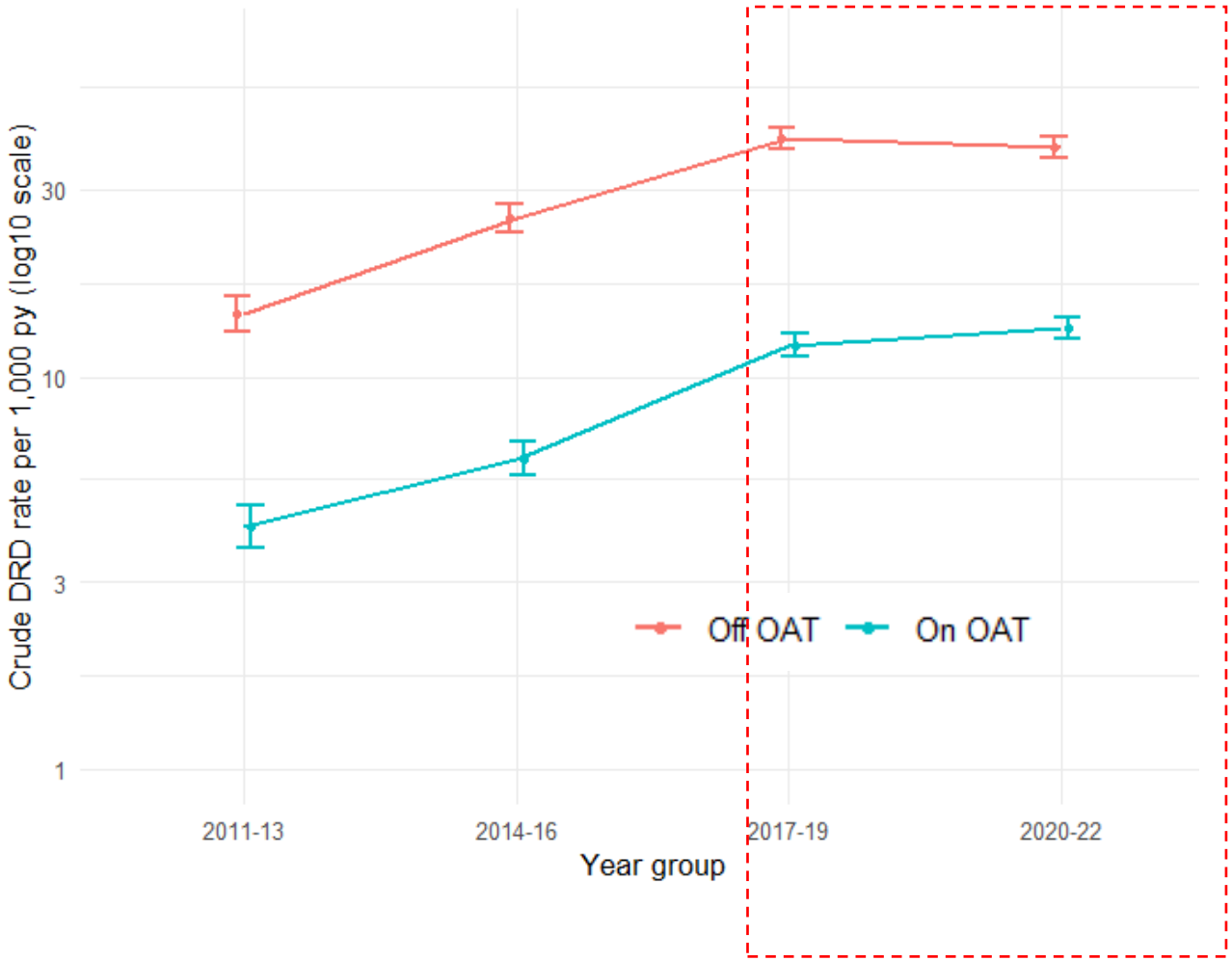
- **Overall DRD rates were 3.4 times higher for those off OAT relative to those on OAT**
- However, DRD rates increased over calendar time for both those on OAT as well as off OAT

DRD rates were almost three and a half times higher (hazard ratio 3·37; 95% CI 1·74–6·53) **for those off OAT compared with those on OAT** after adjustment for confounders.

Prescription dates were not available for all patients; periods on/off OAT were instead based on reimbursements dates which were available for all prescriptions. **On OAT referred to the period from –60 days to –12 days of each reimbursement date**, given a) reimbursements dates were aggregated at the end of the month relating to when prescription is fully dispensed, b) the average number of days between prescription and reimbursement dates was 40 days and b) the duration between consecutive prescription dates was 28 days.

McAuley A, et al. Lancet Public Health, June 2023.

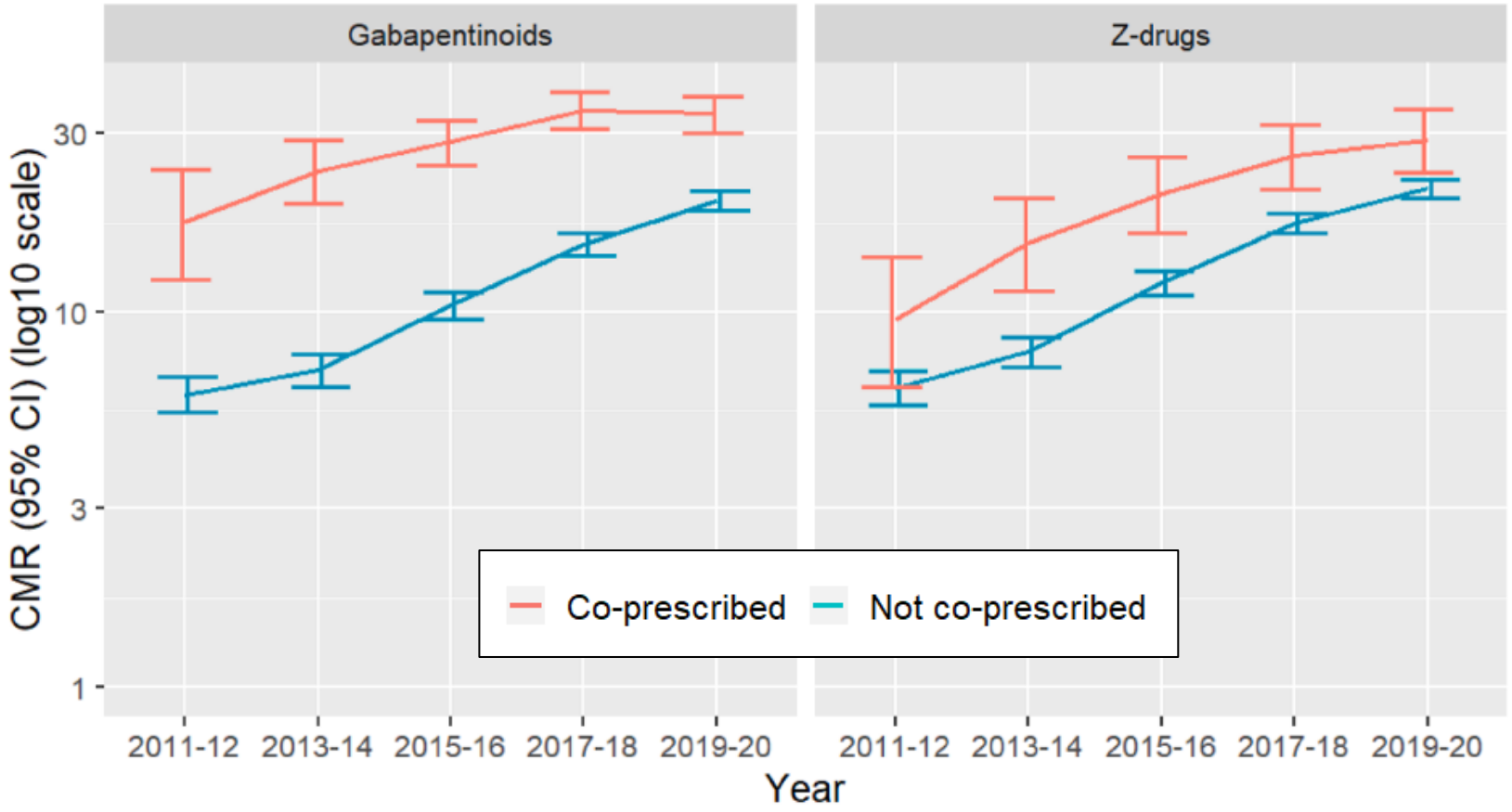
DRD rates remained stable during pandemic



- Overall crude DRD rate was 14 per 1,000 person years
- OAT was protective: **lower DRD rates among those on treatment** after adjustment (aIRR=3.47, 95 % CI=2.98, 4.05)
- DRD rates **increased both on and off OAT** between 2011-13 to 2017-19 (pre-pandemic)
- DRD rates **remained stable during pandemic** (2020-2022), compared to 2017-2019 (aIRR=0.96, 95 % CI=0.80, 1.15)

Glancy M, et al. IJDP, June 2025.

Drug-related mortality rates higher during co-prescription compared to periods without



- Crude drug-related mortality rates **increased over time among exposed and unexposed**
- **Rates were higher among those co-prescribed** gabapentinoids or Z-drugs
- **Two-fold higher risk associated with co-prescription with gabapentinoids** after adjustment; Moderately increased risk associated with co-prescription with Z-drugs

Glancy M, et al. Psychiatry Res, June 2025.

Findings so far

- In period 2010-2020, DRD rates increased for people on and off OAT
- Mortality consistently higher among people off OAT
- Protective effect of OAT maintained during pandemic

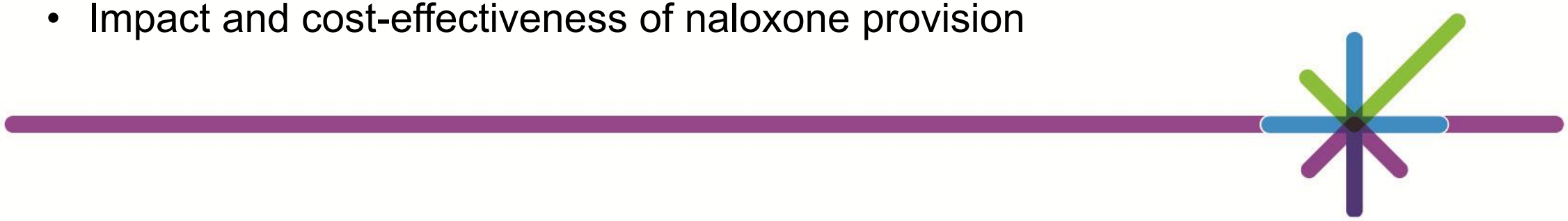
Why did DRDs increase?

- Not increase in population (N opioid users stable/decreasing)
- Not just ageing cohort (mortality increase occurred across age groups)
- Not due to other risks among opioid users (e.g. suicide) (Fraser et al, 2024)
- Increased risk of polydrug use

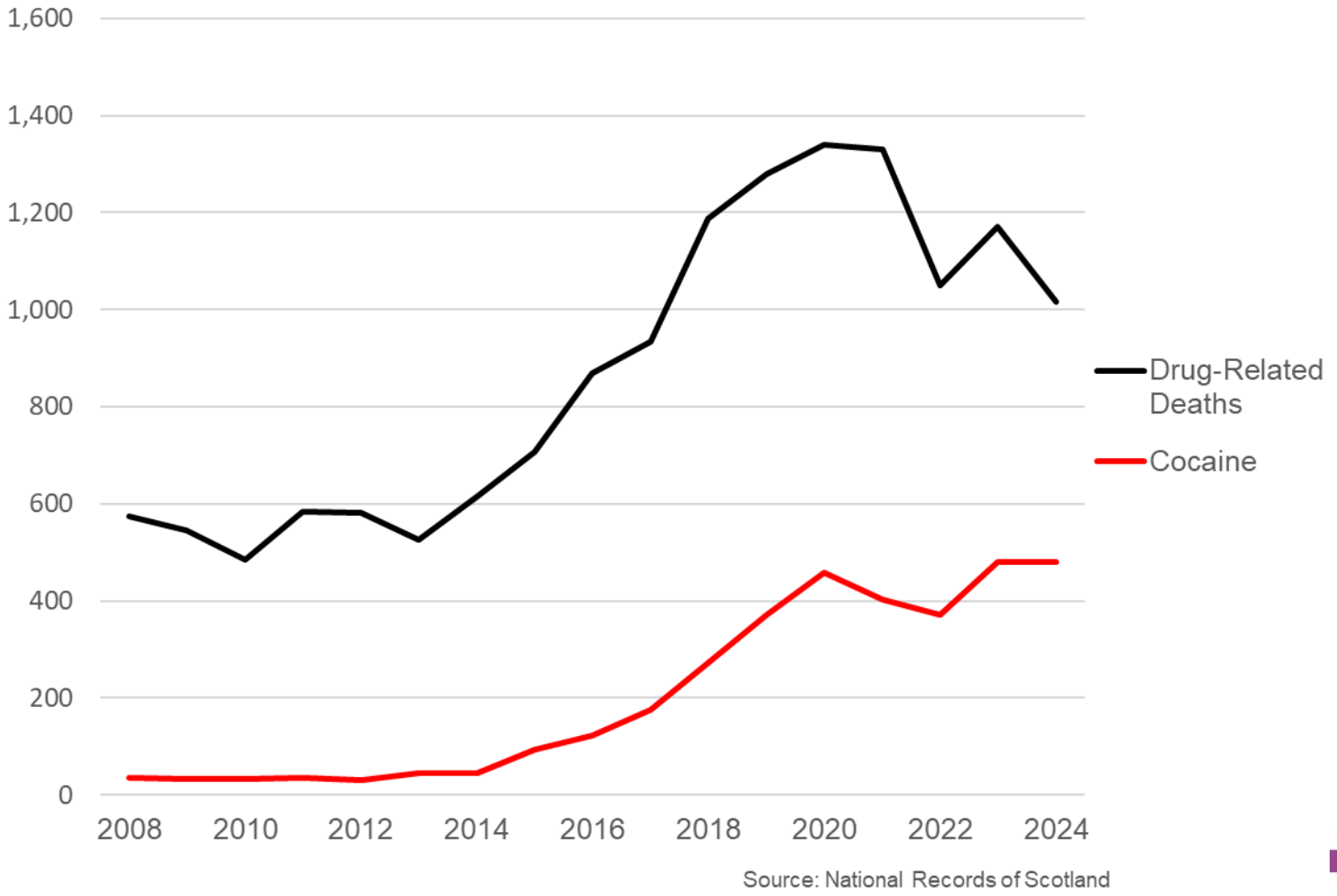
EPHeSUS 2

- NIHR funded
- Led by University of Bristol, in collaboration with GCU, PHS and others
- 2024 to 2028

- Topics
  - Role of Benzodiazepines (prescribed and illicit) in elevating risk
  - OAT retention thresholds for preventing DRDs
  - ‘High-risk periods’ during OAT prescribing
  - Impact of Long-Acting Injectable Buprenorphine on DRD mortality
  - Impact and cost-effectiveness of naloxone provision



Increase in cocaine-related deaths



Cocaine implication

- 2008 to 2014: <10%
- 2024: 47% (n=479)

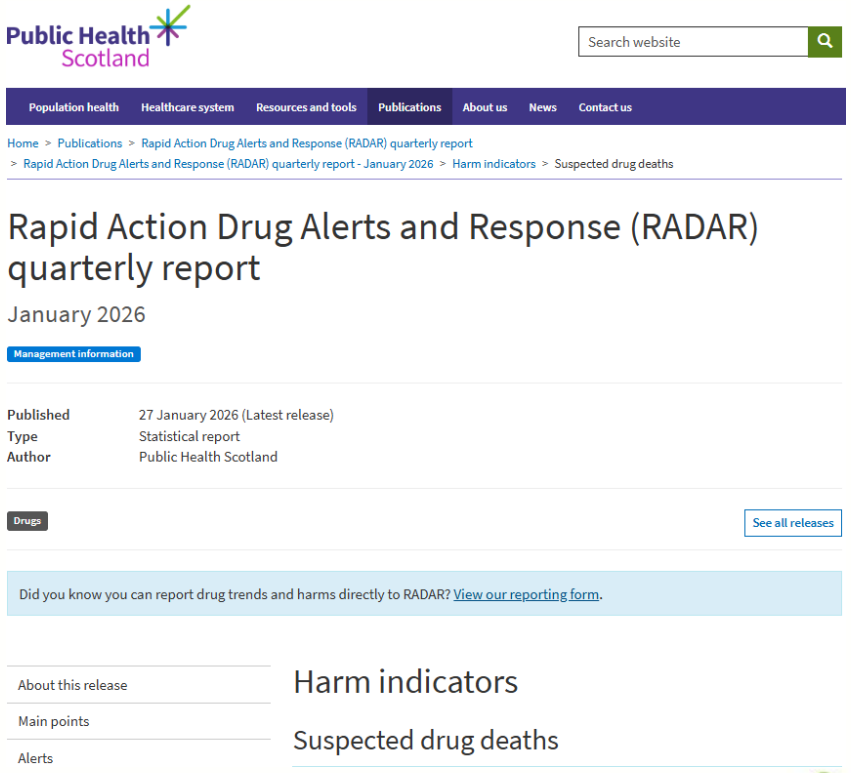
- 2020 to 2024: approx. 440 deaths per year

NESI

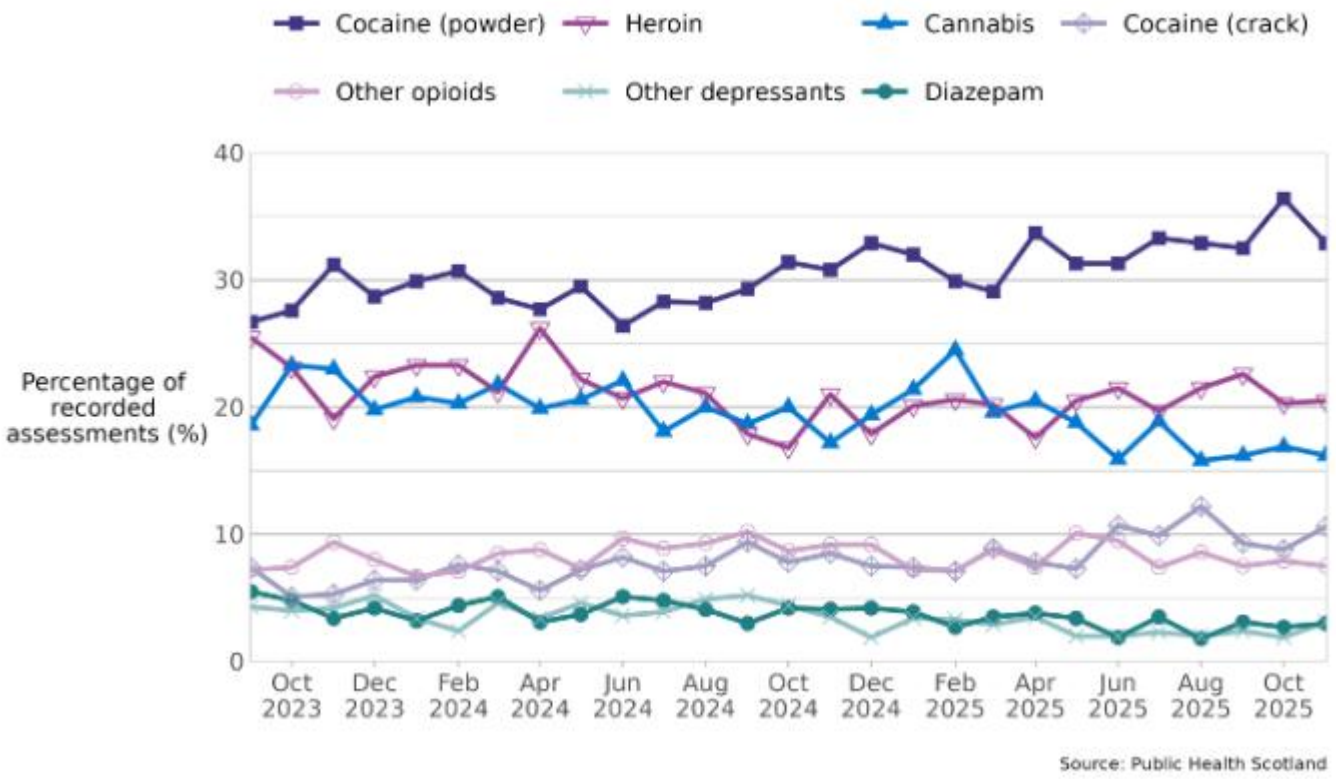
RADAR developments

- Cocaine-specific measures in existing indicators:
  - ED attendances
  - ED toxicology (ASSIST)
  - Hospital admissions
  - Post-mortem toxicology

- New indicators
  - Drug treatment toxicology testing
  - Main drug at specialist drug treatment assessment



RADAR – Main drug reported at assessment, by month

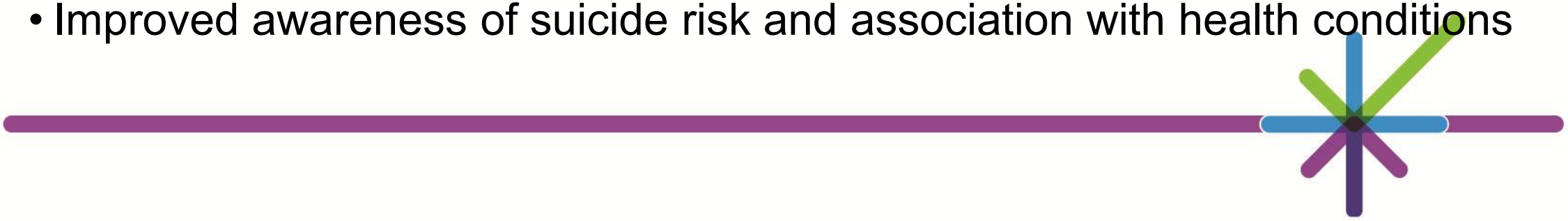


Estimating problematic cocaine use and harms

- PHS aiming to apply MPEP prevalence estimation approach to cocaine

- Examining
  - ‘Problematic use’ cohort based on drug treatment data in SHIeLD
  - Cocaine-related mortality using linked toxicology/pathology data
  - Cocaine-related urgent care journeys (SHIeLD)
  - Cocaine-related hospital admissions (SHIeLD)

- Cocaine-related mortality is poorly captured by DRD definition
- Improved awareness of suicide risk and association with health conditions



Thank you!

DRD investigation and review processes

Crown Investigation

- Police Scotland report suspected DRD to Crown Office
- Crown Office investigate suspected DRD via:
  - Standardised PM toxicology screening
  - Pathology investigation
- Crown Office conclude investigation and inform partners of outcome

Death registration

- Pathologists inform National Records of Scotland of causes of death
- Clinical review of potential DRDs registered in year
- Deaths confirmed as DRD

NHS Board review

- Police inform NHS Board DRD co-ordinators of suspected DRDs
- Local information gathering
- NHS Board DRD review
- For confirmed DRDs, enter details on National Drug Related Death Database (NDRDD)