Civil Registration Data

PCMD(Primary Care Mortality Database)

3.10.22



Civil Registration Data Received by CYC

Patient Level Data

- Primary Care Mortality Database (PCMD) Received from NHS Digital on a monthly basis. Approx. 3 months in arrears.
- Birth Data Received from NHS Digital on a quarterly basis
- (on NHS Digital data patients are not named but NHS numbers are shown)
- Births and deaths data Received from Registrar weekly. Patient's name appears on the data but data is not post-coded (makes geographical analysis a bit trickier) also no ICD10 codes.

Other Summary / Aggregated Data

- ONS weekly Death Registrations used for Covid & Excess deaths analysis
- Data on live deliveries from York Hospital Quarterly. Provides local data on e.g. smoking at time of delivery.



PCMD Content

Patient Level Data

Fields include Age, Gender, NHS Number, Usual Address, Postcode, Ward, Occupation, Cause(s) of Death ICD10 codes and description, Location of death etc

Geography

The York PCMD dataset contains deaths of York residents (regardless of location of death) as well as deaths occurring in York for non York residents.

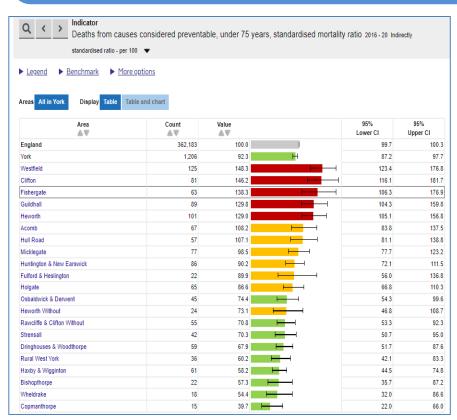
Most death analysis is carried out on the former (deaths of York residents) although on occasions deaths of non-York residents occurring in York is of interest e.g. forthcoming suicide audit has requested this information as well.



PCMD v Published Data

There is loads of published data on mortality (at City and ward level) – which is aggregated, standardised and benchmarked so don't need to re-create this using the raw data.

PCMD data is however useful for looking at local data in more detail and in some cases to give a more up to date picture e.g. PCMD suicide KPI 's – more up to date than the annual published data



| Indicator | Period | Recent Trend | Count | Value | Value | Value | Worst | Range | Best |
|---|-----------|-----------------|-------|-------|-------|-------|-------|----------|------|
| E01 - Infant mortality rate | 2018 - 20 | - | 18 | 3.5 | 4.2 | 3.9 | 6.8 | 0 | 1.7 |
| E02 - Percentage of 5 year olds with experience of visually obvious dental decay | 2018/19 | - | - | 18.9% | 28.7% | 23.4% | 50.9% | | 8.7% |
| E03 - Under 75 mortality rate from causes considered preventable (2019 definition) (1 year range) | 2020 | • | 235 | 134.1 | 160.3 | 140.5 | 272.5 | Þ | 68.2 |
| E03 - Under 75 mortality rate from causes considered preventable (2019 definition) (3 year range) | 2017 - 19 | - | 705 | 136.0 | 163.3 | 142.2 | 265.2 | Þ | 88.0 |
| E04a - Under 75 mortality rate from all cardiovascular diseases (1 year range) | 2020 | → | 112 | 64.4 | 82.5 | 73.8 | 137.1 | O | 36.1 |
| E04a - Under 75 mortality rate from all cardiovascular diseases (3 year range) | 2017 - 19 | - | 344 | 65.9 | 80.2 | 70.4 | 121.6 | O | 43.6 |
| E04b - Under 75 mortality rate from cardiovascular diseases considered preventable (2019 definition) (1 year range) | 2020 | • | 46 | 26.2 | 33.2 | 29.2 | 55.0 | | 16.0 |
| E04b - Under 75 mortality rate from cardiovascular diseases considered preventable (2019 definition) (3 year range) | 2017 - 19 | - | 137 | 26.3 | 32.6 | 28.1 | 49.3 | 0 | 15.0 |
| E05a - Under 75 mortality rate from cancer (1 year range) | 2020 | - | 216 | 124.6 | 135.4 | 125.1 | 187.1 | <u> </u> | 69.3 |
| E05a - Under 75 mortality rate from cancer (3 year range) | 2017 - 19 | - | 690 | 132.2 | 137.5 | 129.2 | 182.4 | | 87.4 |
| E05b - Under 75 mortality rate from cancer considered preventable (2019 definition) (1 year range) | 2020 | → | 91 | 52.2 | 58.0 | 51.5 | 98.2 | o o | 22.6 |
| E05b - Under 75 mortality rate from cancer considered preventable (2019 definition) (3 year range) | 2017 - 19 | - | 268 | 51.6 | 59.8 | 54.1 | 92.4 | Þ | 34.7 |
| E06a - Under 75 mortality rate from liver disease (1 year range) | 2020 | • | 29 | 16.9 | 21.8 | 20.6 | 44.9 | O | 9.4 |
| E06a - Under 75 mortality rate from liver disease (3 year range) | 2017 - 19 | - | 72 | 14.0 | 20.2 | 18.8 | 48.2 | | 11.0 |
| E06b - Under 75 mortality rate from liver disease considered preventable (2019 definition) (1 year range) | 2020 | + | 24 | 14.0 | 19.1 | 18.2 | 37.8 | 0 | 7.9 |
| E06b - Under 75 mortality rate from liver disease considered preventable (2019 definition) (3 year range) | 2017 - 19 | - | 60 | 11.6 | 17.7 | 16.7 | 43.4 | | 9.9 |
| E07a - Under 75 mortality rate from respiratory disease (1 year range) | 2020 | - | 44 | 25.1 | 34.3 | 29.4 | 77.2 | O | 10.2 |
| E07a - Under 75 mortality rate from respiratory disease (3 year range) | 2017 - 19 | - | 176 | 33.8 | 40.5 | 33.6 | 77.5 | O | 13.7 |
| E07b - Under 75 mortality rate from respiratory disease considered preventable (2019 definition) (1 year range) | 2020 | • | 23 | 12.9 | 20.1 | 17.1 | 53.7 | | 6.5 |
| E07b - Under 75 mortality rate from respiratory disease considered preventable (2019 definition) (3 year range) | 2017 - 19 | - | 110 | 21.0 | 24.9 | 20.2 | 45.4 | | 8.3 |
| E08 - Mortality rate from a range of specified communicable diseases, including influenza (1 year range) | 2020 | + | 17 | 8.1 | 7.7 | 8.3 | 16.4 | O | 4.1 |

PCMD Uses

Have had data for 8 yrs approx. Has been used to do local analysis and to support topic specific needs assessment in relation to particular causes of deaths, for example:

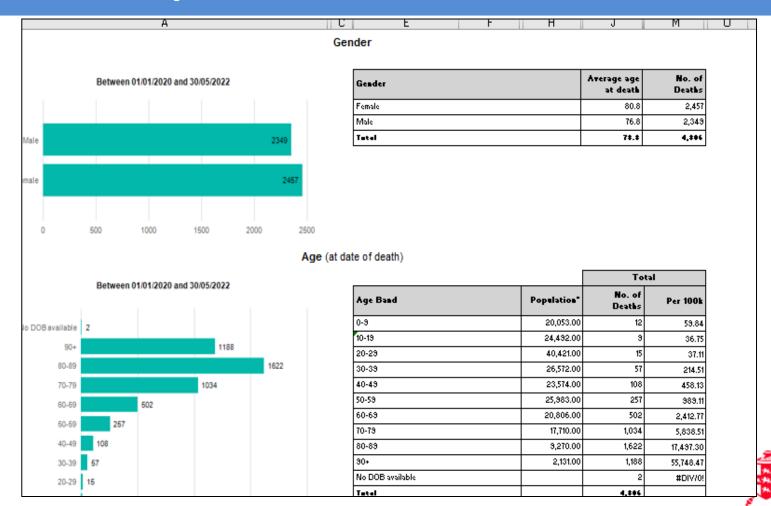
- suicide
- drug misuse
- Covid-19
- deaths of people with learning disability
- deaths of children (for CDOP report)
- deaths in York rivers
- deaths from people of no fixed abode or in homeless/ resettlement accommodation
- deaths of residents from Mesothelioma (asbestos)
- excess Winter Deaths at ward level

NB Permission is needed to link datasets. E.g. permission was obtained from NHS Digital to link PCMD with Theseus for drug related deaths work.



Report 1- A summary of selected causes of death

The report 'A summary of selected causes of death' gives all deaths of York residents occurring in a specified time period showing a breakdown by ward, age band, gender and broad cause of death (based on the underlying cause of death ICD code). The output shown is a sample report showing all deaths between 1.1.20 and 30.5.22 for both genders and all causes of death.



Overview of causes of death

Report provides a breakdown of ICD-10 high level causes of death. Can 'expand' each high level heading to see a more detailed breakdown e.g. (next slide)

ICD category and code breakdown

| ICD grouping | No of deaths |
|---|--------------|
| Certain conditions originating in the perinatal period (P00-P96) | 5 |
| Certain infectious and parasitic diseases (A00-B99) | 32 |
| Codes for special purposes (U00-U85) | 431 |
| Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 10 |
| Diseases of the blood (D50-D89) | 7 |
| Diseases of the circulatory system (I00-I99) | 1205 |
| Diseases of the digestive system (K00-K95) | 211 |
| Diseases of the ear and mastoid process (H60-H95) | 1 |
| Diseases of the genitourinary system (N00-N99) | 48 |
| Diseases of the musculoskeletal system and connective tissue (M00-M99) | 23 |
| Diseases of the nervous system (G00-G99) | 340 |
| Diseases of the respiratory system (J00-J99) | 404 |
| Diseases of the skin and subcutaneous tissue (L00-L99) | 17 |
| Endocrine, nutritional and metabolic diseases (E00-E89) | 72 |
| External causes of morbidity (V00-Y99) | 22 |
| Mental, Behavioral and Neurodevelopmental disorders (F01-F99) | 357 |
| Neoplasms (C00-D49) | 1314 |
| Not categorised using ICD10 | 166 |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 141 |
| Total | 4806 |

Detailed causes of death – Circulatory System

As an example the heading of 'Diseases of the Circulatory System' has been expanded into more detailed codes

| 112 Diseases of the circulatory system (I00-I99) | | 1205 |
|--|--|--------------|
| | ICD description and code | No of deaths |
| 113 | | |
| 114 | Chronic ischaemic heart disease (I259) | 204 |
| 115 | Acute myocardial infarction (I219) | 198 |
| 116 | Stroke, not specified as haemorrhage or infarction (I64) | 139 |
| 117 | Chronic ischaemic heart disease (I251) | 84 |
| 118 | Atrial fibrillation and flutter (1489) | 73 |
| 119 | Other cerebrovascular diseases (1679) | 45 |
| 120 | Intracerebral haemorrhage (1619) | 37 |
| 121 | Heart failure (I500) | 34 |
| 122 | Nonrheumatic aortic valve disorders (1350) | 27 |
| 123 | Other peripheral vascular diseases (1739) | 26 |
| 124 | Hypertensive heart disease (I110) | 26 |
| 125 | Pulmonary embolism (I269) | 26 |
| 126 | Essential (primary) hypertension (I10) | 18 |
| 127 | Other nontraumatic intracranial haemorrhage (1629) | 16 |
| 128 | Hypertensive renal disease (I120) | 15 |
| 129 | Heart failure (I509) | 15 |
| 130 | Aortic aneurysm and dissection (I713) | 15 |
| 131 | Phlebitis and thrombophlebitis (I802) | 13 |
| 132 | Aortic aneurysm and dissection (I710) | 13 |
| 123 | Cerebral infarction (1639) | 13 |

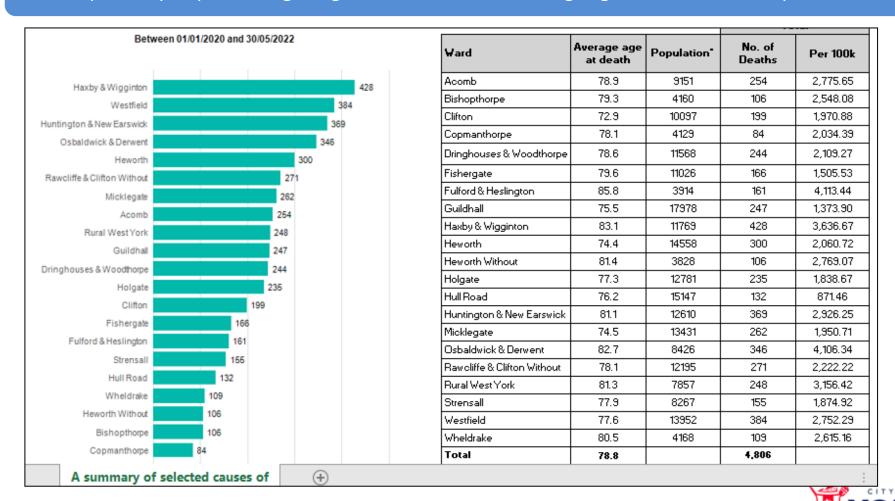
Detailed causes of death 2 – Neoplasms

As an example the heading of 'Neoplasms' has been expanded into more detailed codes

| A | C H J | IVI |
|---------------------|--|--------------|
| Neoplasms (C00-D49) | | 1314 |
| | ICD description and code | No of deaths |
| | Malignant neoplasm of bronchus and lung (C349) | 251 |
| | Malignant neoplasm of prostate (C61) | 89 |
| | Malignant neoplasm of breast (C509) | 86 |
| | Malignant neoplasm of pancreas (C259) | 81 |
| | Malignant neoplasm of oesophagus (C159) | 69 |
| | Malignant neoplasm, without specification of site (C800) | 69 |
| | Malignant neoplasm of colon (C189) | 44 |
| | Malignant neoplasm of rectum (C20) | 39 |
| | Multiple myeloma and malignant plasma cell neoplasms (C900) | 34 |
| | Malignant neoplasm of bladder (C679) | 33 |
| | Malignant neoplasm of kidney, except renal pelvis (C64) | 29 |
| | Malignant neoplasm of rectosigmoid junction (C19) | 29 |
| | Malignant neoplasm of brain (C719) | 29 |
| | Malignant neoplasm of liver and intrahepatic bile ducts (C221) | 29 |
| | Malignant neoplasm of ovary (C56) | 25 |
| | Malignant neoplasm, without specification of site (C809) | 21 |
| | Malignant melanoma of skin (C439) | 21 |
| | Malignant neoplasm of corpus uteri (C541) | 20 |
| | Malignant neoplasm of stomach (C169) | 19 |
| | Myeloid leukaemia (C920) | 17 |
| | Masothaliama (C450) | 15 |

Deaths by Ward

Numbers, rates and average age at death by ward are shown. NB Data can provide an earlier indication of life expectancy disparities e.g. range of 72.9 to 85.8 for average age at death over this period



Report 2 Detailed mortality records for selected causes of death

The report shows a line for each death with some demographic details and all causes of death noted on the death certificate – this output shows deaths of males in 2020 from diseases of the respiratory system (restricted access as contains PID)

| L | | | | | | | | | | |
|---|------|---------------|----------------|--------------|--------------------|------------------------------------|-----|------|---------------------|----------------|
| ı | Age | Date of Birth | Date of Death | Date of Reg. | LSOA of Residence | Occupation of Deceased | Sex | Ward | Cause of Death Code | Cause of Death |
| | ,.go | Duto of Diffi | Date of Doutin | Date of Regi | 200710171001001100 | o o o a patient or b o o o a o o a | 00% | | | oudo or bouth |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Ц | | | | | | | | | | |

Reports for Specific Causes of Death

Have set up some more specific version of the reports e.g. for deaths from Covid-19 and deaths by suicide. May add some more in due course e.g. deaths from Drug Misuse.

Primary care mortality Reports covering different thematic classifications for mortality



A summary of Covid-19 as a cause of death



A summary of selected causes of death



A summary of suicide as a cause of death

Breakdown of York Covid-19 deaths between specific dates

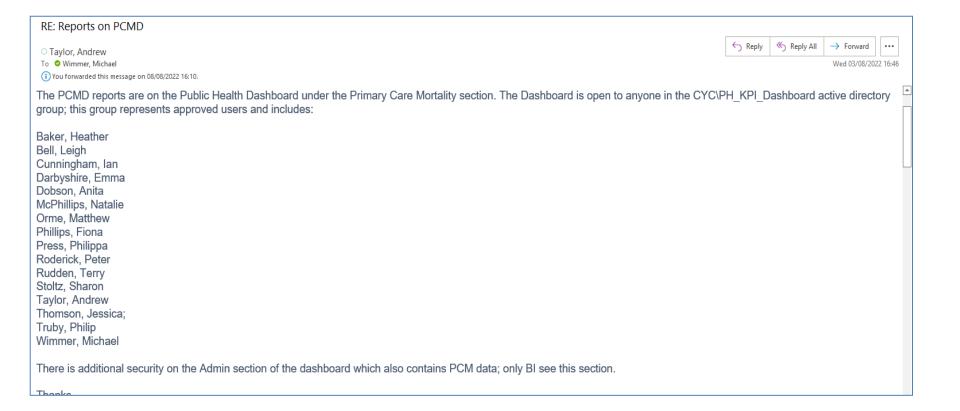
Breakdown of York selected deaths between specific dates

Breakdown of York suicide deaths between specific dates



Access

Summary Reports are accessible to people within PH. Detailed line by line report is restricted.



Further Work

- Using PCMD reports to provide some analysis for forthcoming Suicide Audit.
- To Develop similar reporting for births data. Have not had many queries re: births
 to date although there was one relating to falling birth rates in York so may be
 useful to set up some standard reports.