# Official Statistics: Cancer incidence, survival and prevalence: 1993-2020

Dr David Donnelly Gerard Savage Dr Damien Bennett











### **Official Statistics**

NICR - designated provider of cancer incidence, survival and prevalence data

► Produced to high professional standards (UK Statistics Authority Code of Practice for Official Statistics) since 2012.

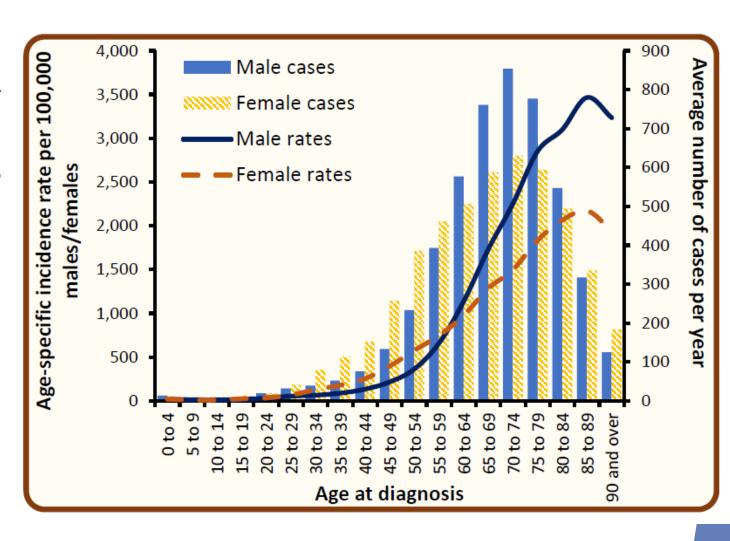
➤ Official Statistics for 1993-2020 - released in four waves throughout 2022/23.

## Cancer cases per year: 2016-2020





- > 9,843 (4,968 male, 4,874 female) cases per year.
- Excludes non-melanoma skin cancer
   (NMSC) 3,841 cases per year.
- Cancer risk strongly related to age
   34% of cases occurring among
   people aged 75 years and over.
- Odds of developing cancer:
  - by age 75 1 in 3.5 for men and 1 in 3.8 for women.
  - by age 85 1 in 2.1 for men and1 in 2.5 for women.



## Common cancer types: 2016-2020



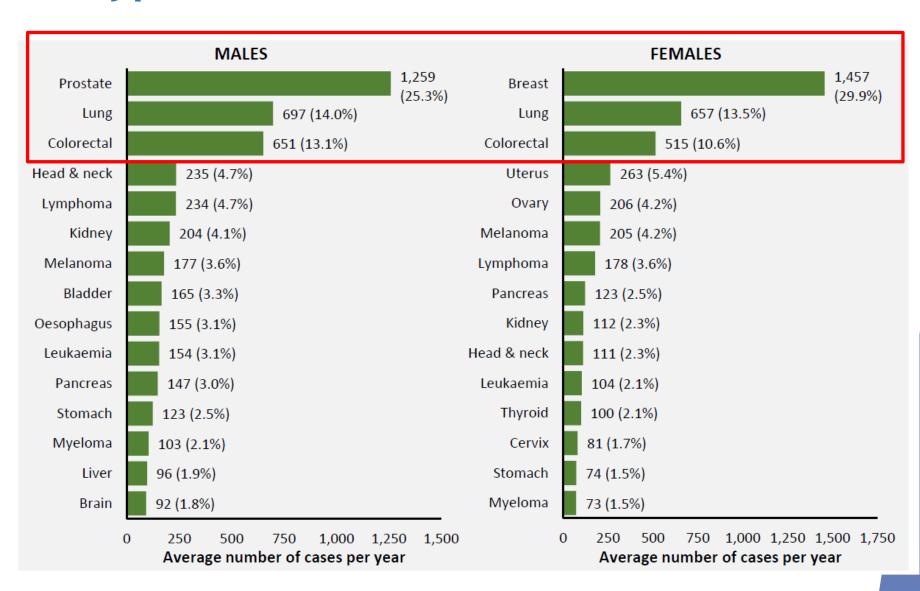


#### Men:

- prostate cancer (25%),
- ▶ lung cancer (14%),
- bowel cancer (13%).

#### Women:

- breast cancer (30%),
- ▶ lung cancer (13.5%),
- bowel cancer (11%).



## Trends in cancer cases, 1996-2020



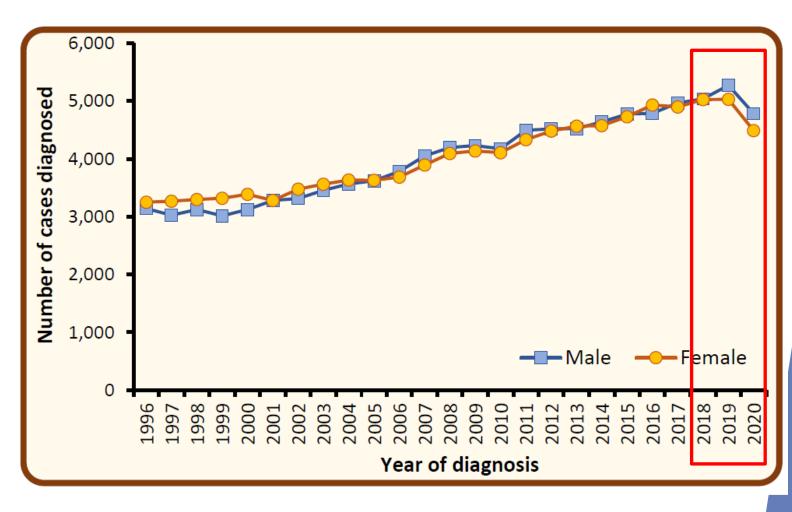


Average number of cancer cases (ex. NMSC) per year **increased by** 7.9% - from

- > 9,125 cases in 2011-2015 to
- > 9,843 cases in 2016-2020.

- ► Men: 8.3% increase
- ▶ Women: **7.5**% increase





NB - Population effects..... ↑ n and ↑ ageing



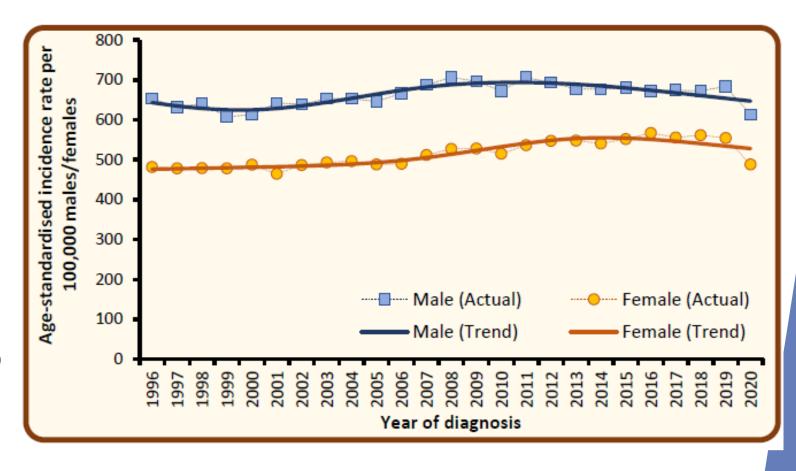


## Trends in incidence rates, 1996-2020

After removing the effect of changes in population age and size (ASR):

Cancer incidence rates

- between 2011-2015 and 2016-2020.
- Males decreased by3.5% between 2011-2015and 2016-2020.



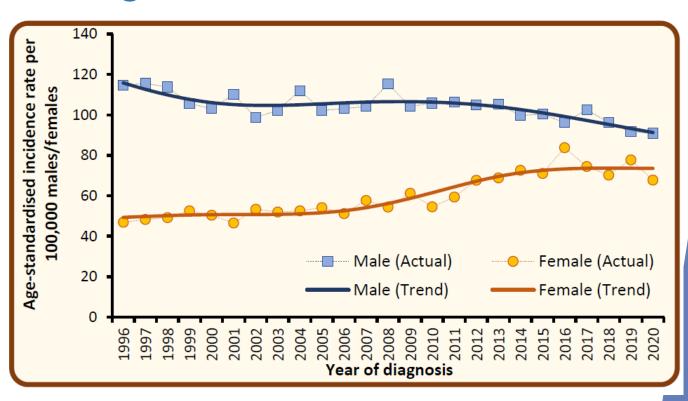




## Trends in incidence rates, 1996-2020

- ► ASR for 4 most common cancers, between 2011-2015 and 2016-2020
  - Rates of lung cancer decreased by 8% for men BUT increased by 10% for women;
  - Rates of breast cancer increased by 2%;
  - Rates of prostate cancer increased by 1%;
  - Rates of bowel cancer decreased by 14% for men and by 10% for women

### Lung cancer



## Cancer and deprivation



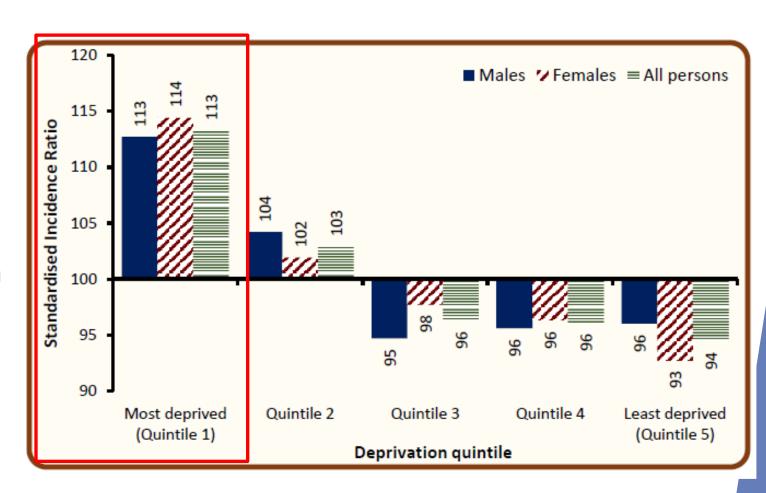


#### 2016-2020 incidence rates

▶ 13% higher in most deprived areas wrt NI average

Head and neck, Oesophageal, Stomach, Lung and Cervical cancer higher in most deprived areas

 Melanoma, Prostate cancer and Lymphoma - higher in <u>least</u> deprived areas



## Cancer stage

During 2016-2020 - % late-stage disease (stage IV) ranged from

- <1% (testicular cancer)</p>
- 50% (pancreatic cancer) patients.

For 4 most common cancers - the proportion diagnosed at stage IV (late-stage):

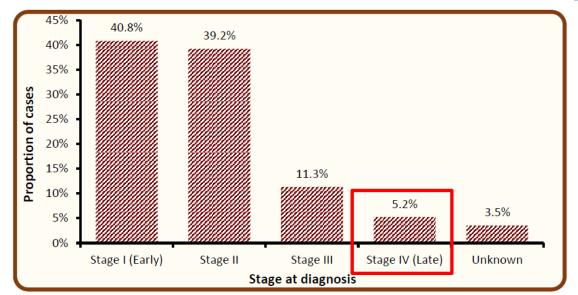
- ▶ 5% breast cancer;
- ▶ 18% prostate cancer;
- ▶ 21% bowel cancer;
- ► 44% lung cancer.

#### Female breast

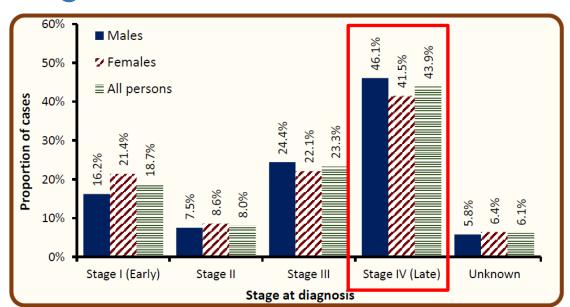








#### Lung cancer



## Cancer survival by stage





- Stage at diagnosis remains biggest factor in cancer survival.
- Five-year net survival -

90% - Early stage (stage I)

14% - Late stage (stage IV)

#### <u>5yr Survival -</u>

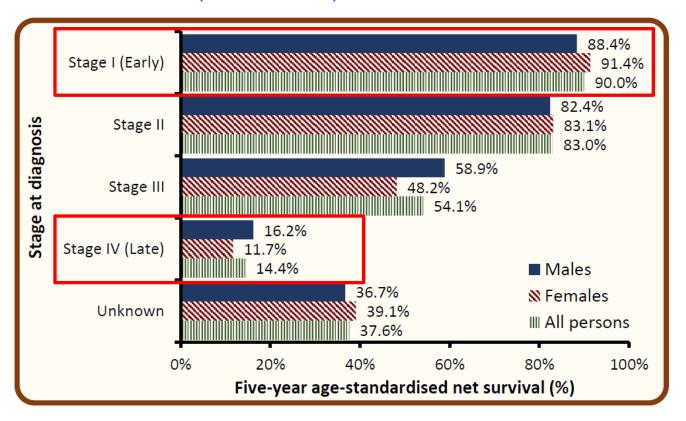
Early stage (stage I) vs Late stage (stage IV)

▶ Breast cancer: 99% vs. 20%;

▶ Bowel cancer: 95% vs. 8%;

► Lung cancer: 50% vs. 1%;

#### All cancers (ex NMSC)



## Cancer prevalence - people living with cancer





#### At end of 2020

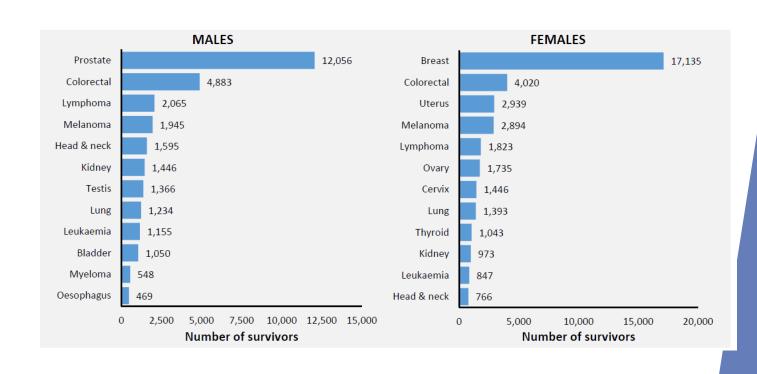
► 69,168 people living with cancer

[diagnosed 1996-2020 (25yr-prevalence)]

▶ 45% male / 55% female

▶ 34% aged 75+

## Most prevalent cancers: Males - prostate + colorectal cancer Females - breast + colorectal cancer



# Cancer incidence projections to 2040







## Projections to 2040 - All cancers





#### Steady case increase over time

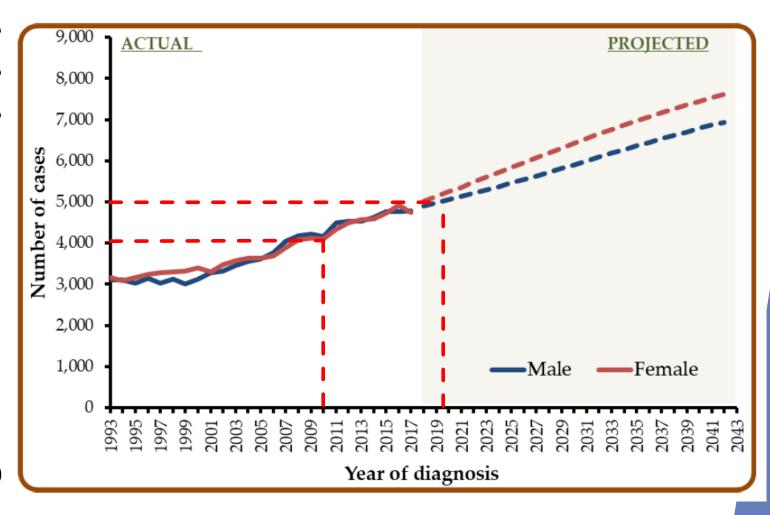
- ▶ 1993 ~3,000 male / ~ 3,000 female
- ▶ 2010 ~4,000 male / ~ 4,000 female
- ▶ 2020 ~5,000 male / ~ 5,000 female

..projected to continue...

By **2040 - projected** cases per year -

- 6,788 male 45% rise
- > 7,450 female 58% rise

(using 2013-17 baseline - 4,691 male, 4,710 female)



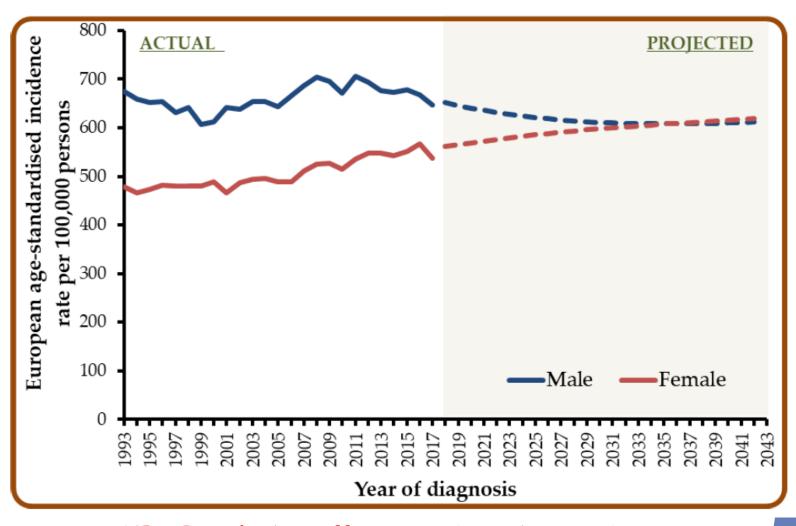




## Projections to 2040 - All cancers

After removing the effect of changes in population age and size (EAS Incidence rates):

- In women projected continued increase 12% rise by 2040.
- ► In men projected 9% reduction by 2040.



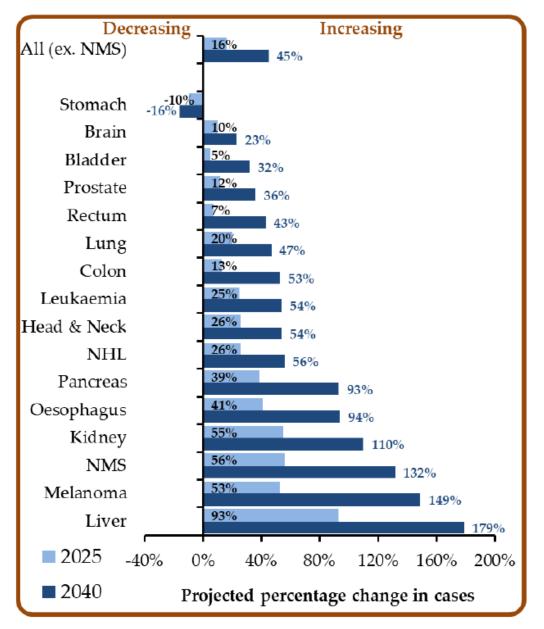






• By 2040 - cases each year projected to increase for all cancer types compared to 2013-2017 - except stomach cancer.

- By 2040 the most common male cancers are expected to remain:
  - Prostate (1,537 cases)
  - Lung (1,033 cases)
  - Bowel (975 cases)









 By 2040 - cases each year projected to increase for all cancer types compared to 2013-2017, except cervical and stomach cancer.

- By 2040 the most common female cancers are expected to remain:
  - Breast (2,201 cases)
  - Lung (1,344 cases)
  - Bowel (832 cases)

