The publication Demography 2016 consists of:

- Wales summary document and key messages
- Seven health board summary documents
- Four interactive data files showing the main indicators and key messages
- Three map interactive files
- Infographics of selected key messages
- Technical guides describing the indicators, data sources and caveats

These resources are available at
https://phw.nhs.wales/services-and-teams/observatory/data-and-analysis/demography2016/

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## Acknowledgements

Thanks to the following people for their help with this publication:
Hugo Cosh, Andrea Gartner, Rhys Gibbon, Tracy Price
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## How to copy charts and maps into other documents

The standard \{Cut\}, \{Copy\} and \{Paste\} options can be used in Microsoft Word to export tables, charts and maps to other documents. Images can also be resized as required.

## Copying and pasting charts and maps (Figure 1)

1. Select the image you want to copy by left clicking on it once so that the surrounding points are displayed.
2. Either on the 'Home' tab or through the right click menu select either 'Cut' or 'Copy'.
3. In the document where you want to insert the image, select 'Paste' either through the 'Home' tab or the rightclick menu.

Figure 1


## Resizing images (Figure 2)

1. To adjust the size, left-click the image once so that the surrounding points are displayed.
2. You can either adjust the length and width manually through the 'Format' tab or use the points to resize the image by clicking and dragging.
3. When resizing an image it is best to use the corner points dragging method, as this will retain the proportions of the original image. Re-sizing just horizontally or vertically leads to distortion of the perspective and a reduction in image quality.

Figure 2


## 1 Introduction

This Wales summary document provides national level information on the indicators contained in the publication Demography 2016. It includes selected charts, tables and small area maps for Wales and is designed to complement the health board summary documents.

The publication Demography 2016 consists of:

- A Wales summary document and key messages
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## Note

It has recently come to light that the population aged 85+ has been underestimated in some areas by the Office for National Statistics population estimates. In most parts of Wales the impact of this issue will be small. Further details are available from the Demography 2016 webpage

## 2 Population estimates

Population estimates are produced annually by the Office for National Statistics. The estimates are based on the most recent Census (2011) from which births are added, deaths are subtracted and an estimate is made of net migration.

### 2.1 Key messages

- Over the last 10 years (2005 to 2014), the population of Wales has increased by over $4 \%$ from around 2.97 million to 3.09 million ( $5.1 \%$ and $3.2 \%$ increase for males and females, respectively)
- In 2014, an estimated $49 \%$ of the population were male and $51 \%$ female in Wales
- The largest increase (10.4\%) in population was seen in Cardiff which increased from around 320,000 in 2005 to 350,000 in 2014
- Ceredigion saw the only decrease (-0.1\%) in population from 2005 to 2014
- In 2014, 1 in 5 Welsh residents were aged over 65 years (20\%), 6 in every 10 (62\%) were of working age ( 16 to 64 years) and nearly 1 in 5 (18\%) were aged under 16
- The population aged under 16 in Wales has decreased by over 2\% between 2005 and 2014, from around 568,000 to 555,000
- The population in Wales aged 85+ has increased by over a quarter (27\%) between 2005 and 2014, from an estimated 62,000 to 79,000


### 2.2 Population trends

Population estimates, count, persons, Wales, 2005-2014
Produced by Public Health Wales Observatory, using MYE (ONS)


### 2.3 Population trends by age

Population estimates by age group, percentage, persons, Wales, 2005-2014


### 2.4 Population pyramid 2005 and 2014 comparison

Percentage of population by age and sex, Wales, 2005 and 2014
Produced by Public Health Wales Observatory, using MYE (ONS)
ـ $2005 \quad 2014$


## 2.5 Population estimates by Lower Super Output Area

## Under 16

## Estimated population aged under 16, Wales, 2014

LSOA, percentage

| $\square$ | 28.2 to $35.0 \quad[23]$ |
| :--- | :--- |
| $\square$ | 21.5 to $<28.2 \quad[290]$ |
| $\square$ | 14.8 to $<21.5 \quad[1245]$ |
| $\square$ | 8.1 to $<14.8 \quad[322]$ |
| $\square$ | 1.4 to $<8.1 \quad[29]$ |

$\square$ Local authority boundary


Produced by Public Health Wales Observatory, using MYE (ONS)
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## Estimated population aged 16-64 years, Wales, 2014

LSOA, percentage

$\square$ Local authority boundary


## Estimated population aged 65-84 years, Wales, 2014

LSOA, percentage
$\square 35.5$ to $44.1 \quad[6]$
$\square$
26.9 to $<35.5 \quad[103]$
$\square$
18.3 to $<26.9 \quad[724]$
$\square$
$\square .7$ to $<18.3 \quad[912]$
$\square$
1.0 to $<9.7 \quad[164]$
$\square$ Local authority boundary


Produced by Public Health Wales Observatory, using MYE (ONS)
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## Estimated population aged 85+, Wales, 2014

LSOA, percentage

| $\square$ | 8.5 to $10.6 \quad[10]$ |
| :--- | :--- |
| $\square$ | 6.4 to $<8.5 \quad[37]$ |
| $\square$ | 4.3 to $<6.4 \quad[176]$ |
| $\square$ | 2.2 to $<4.3 \quad[825]$ |
| $\square$ | 0.1 to $<2.2 \quad[861]$ |

$\square$ Local authority boundary


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## 3 Population projections

Population projections provide estimates of the size of the future population and are based on assumptions about births, deaths and migration which are based on past trends.

### 3.1 Key messages

- The population of Wales is projected to increase by almost 9\%, from around 3.1 million in 2011 to over 3.3 million in 2036
- The 65 to 84 and 85+ age groups are projected to have the largest increase by 2036, when an estimated 1 in 4 people in Wales will be aged 65 and over
- By 2036, it is estimated that the number of people aged 85 and over in Wales will increase by nearly 145\% (from around 75,000 in 2011 to over 184,000 in 2036), with the largest increase seen in Flintshire (approximately 220\%)
- It is estimated that there will be a small decline of just over $1 \%$ in the number of people aged under 65 living in Wales by 2036, with the largest decrease seen in Powys (approximately 17\%)
- The largest projected population increase at the local authority level is in Cardiff which is projected to increase by around a third, from an estimated 345,000 in 2011 to over 455,000 in 2036
- Three local authority areas are projected to have a decrease in the population in 2036 (Isle of Anglesey, Blaenau Gwent and Monmouthshire), with the largest decline of nearly 7\% seen in Blaenau Gwent (from around 70,000 in 2011 to 65,000 in 2036)


### 3.2 Projection trends by age

Population projections by age group, percentage change since 2011, Wales, 2011 2036
Produced by Public Health Wales Observatory, using 2011-based population projections (WG)


### 3.3 Past trends and projections

## Population estimates and projections*, count, Wales, 2011 to 2036

Produced by Public Health Wales Observatory, using MYE (ONS) \& 2011-based population projections (WG)

*Data from 2011 to 2014 are based on mid-year population estimates ( - ); data for 2015 to 2036 are based on population projections (---)

## 4 Mortality

The main measure of mortality used in this profile is the European age-standardised rate which accounts for differences in the population age structure between areas and over time.

### 4.1 Key messages

- All-cause mortality rates for under 75 s and all ages have generally decreased in Wales between 2004-06 and 2012-14
- Over the last 10 years in Wales, there has been a $16.5 \%$ decrease in all-cause mortality rates in males aged under 75 and nearly $14 \%$ decrease in females aged under 75
- In 2012-2014 the all-cause mortality rate for under 75s in Wales was 34\% higher in males than females
- There has been a $12.4 \%$ decrease in all-cause mortality rates for persons of all ages between 2004-06 and 2012-14 in Wales (13.5\% and 11.9\% decrease for males and females, respectively)
- In 2012-14, Blaenau Gwent had the highest all-cause mortality rate for persons aged under 75 and all ages whilst Monmouthshire had the lowest all-cause mortality rate for persons aged under 75 and all ages
- Wales had a higher all-cause mortality rate compared to England for both persons aged under 75 (10.4\%) and all ages (7\%) in 2012-14


### 4.2 All-cause mortality trends

## Under 75

All-cause mortality, European age-standardised rate per 100,000, persons, under 75, Wales, 2004-06 to 2012-14
Produced by Public Health Wales Observatory, using PHM \& MYE (ONS)


All-cause mortality, European age-standardised rate per 100,000, average annual count and crude rate, persons, under 75, Wales, 2004-06 to 2012-14

|  | Average <br> annual <br> count | Crude <br> rate | EASR (95\% CI) |
| :---: | :---: | :---: | :---: |
| $2004-06$ | 11,068 | 407 | $444(439$ to 449$)$ |
| $2005-07$ | 11,021 | 403 | $436(432$ to 441$)$ |
| $2006-08$ | 10,971 | 398 | $428(424$ to 433$)$ |
| $2007-09$ | 10,931 | 395 | $420(416$ to 425$)$ |
| $2008-10$ | 10,714 | 385 | $406(402$ to 411$)$ |
| $2009-11$ | 10,538 | 378 | $395(391$ to 399$)$ |
| $2010-12$ | 10,440 | 373 | $387(382$ to 391$)$ |
| $2011-13$ | 10,481 | 374 | $383(379$ to 387$)$ |
| $2012-14$ | 10,448 | 372 | $376(372$ to 381$)$ |

Produced by Public Health Wales Observatory, using PHM \& MYE (ONS)
EASR = European age-standardised rate
CI = confidence interval

## All ages

All-cause mortality, European age-standardised rate per 100,000, persons, all ages, Wales, 2004-06 to 2012-14
Produced by Public Health Wales Observatory, using PHM \& MYE (ONS)


All-cause mortality, European age-standardised rate per 100,000, average annual count and crude rate, persons, all ages, Wales, 2004-06 to 2012-14

|  | Average <br> annual <br> count | Crude <br> rate | EASR (95\% CI) |
| :---: | :---: | :---: | :---: |
| $2004-06$ | 31,854 | 1,072 | $1,189(1,181$ to 1,196$)$ |
| $2005-07$ | 31,797 | 1,064 | $1,170(1,163$ to 1,178$)$ |
| $2006-08$ | 31,765 | 1,057 | $1,153(1,146$ to 1,161$)$ |
| $2007-09$ | 31,739 | 1,050 | $1,136(1,128$ to 1,143$)$ |
| $2008-10$ | 31,422 | 1,034 | $1,107(1,100$ to 1,114$)$ |
| $2009-11$ | 30,875 | 1,012 | $1,068(1,062$ to 1,075$)$ |
| $2010-12$ | 31,041 | 1,014 | $1,055(1,048$ to 1,062$)$ |
| $2011-13$ | 31,354 | 1,020 | $1,049(1,042$ to 1,055$)$ |
| $2012-14$ | 31,693 | 1,028 | $1,042(1,036$ to 1,049$)$ |

Produced by Public Health Wales Observatory, using PHM \& MYE (ONS)
EASR = European age-standardised rate
CI = confidence interval

### 4.3 All-cause mortality 2012-14

## Under 75

All-cause mortality, European age-standardised rate per 100,000, persons, under 75, Wales local authorities and health boards, 2012-14
Produced by Public Health Wales Observatory, using PHM \& MYE (ONS)


## Al/ ages

All-cause mortality, European age-standardised rate per 100,000, persons, all ages, Wales local authorities and health boards, 2012-14
Produced by Public Health Wales Observatory, using PHM \& MYE (ONS)


## 4.4 <br> All-cause mortality by Middle Super Output Area

## Under 75

## All-cause mortality, persons, under 75, Wales, 2012-2014

MSOA, European age-standardised rate per 100,000

| $\square$ | 657.3 to $782.1[6]$ |
| :--- | :--- |
| $\square$ | 532.4 to $<657.3[28]$ |
| $\square$ | 407.5 to $<532.4[135]$ |
| $\square$ | 282.6 to $<407.5[173]$ |
| $\square$ | 157.7 to $<282.6[68]$ |

$\square$ Local authority boundary


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## 5 General fertility rate

The general fertility rate is the number of live births per 1,000 females aged 15-44.

### 5.1 Key messages

- There were just over 33,500 live births in Wales in 2014
- Over the past 10 years, the fertility rate in Wales has shown little variation with a small increase seen between 2005 and 2014 ( 56 and 59 live births per 1,000 females aged 15-44, respectively)
- In 2014, the highest fertility rate was in Denbighshire and the lowest in Ceredigion ( 72 and 44 live births per 1,000 females aged 15-44, respectively)
- The presence of a large student population within a local authority tends to reduce the fertility rate in that area, as students in higher education tend to have below average fertility
- Denbighshire had the largest increase in fertility rate, from 59 per 1,000 females aged 15-44 in 2005 to 72 per 1,000 females aged 15-44 in 2014
- Gwynedd, Rhondda Cynon Taf and Torfaen local authorities showed a small decrease in fertility rate between 2005 and 2014


### 5.2 General fertility rate trends

General fertility rate (GFR)*, Wales, 2005-2014
Produced by Public Health Wales Observatory, using PHB \& MYE (ONS)

*GFR is the number of live births per 1,000 females aged 15-44

General fertility rate (GFR)*, Wales, 2005-2014

|  | Number <br> of live <br> births | GFR* (95\% CI) |
| :---: | :---: | :---: |
| 2005 | 32,590 | $56(55$ to 57$)$ |
| 2006 | 33,623 | 57 (57 to 58$)$ |
| 2007 | 34,392 | 59 (58 to 59$)$ |
| 2008 | 35,644 | $61(60$ to 61$)$ |
| 2009 | 34,938 | $60(59$ to 60$)$ |
| 2010 | 35,945 | $62(61$ to 62$)$ |
| 2011 | 35,604 | $61(61$ to 62$)$ |
| 2012 | 35,238 | $61(61$ to 62$)$ |
| 2013 | 33,742 | 59 (58 to 60$)$ |
| 2014 | 33,541 | 59 (58 to 60$)$ |

Produced by Public Health Wales
Observatory, using PHB \& MYE (ONS)
*GFR is the number of live births per 1,000
females aged 15-44
CI=Confidence Interval

### 5.3 General fertility rate 2014

## General fertility rate (GFR)*, Wales, health boards and local authorites, 2014


*GFR is the number of live births per 1,000 females aged 15-44

## 5.4 General fertility rate by Lower Super Output Area

General fertility rate, Wales, 2014
LSOA, live births per 1,000 females aged 15-44
$\square 121.8$ to $151.5[1]$
$\square \quad 92.2$ to $<121.8[48]$
$\square \quad 62.5$ to $<92.2[770]$
$\square \quad 32.8$ to $<62.5[1021]$
$\square \quad 3.2$ to $<32.8[69]$

## $\square$ Local authority boundary



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