

# COVID-19 DATA PACK – outbreak and risk profile

## Isle of Wight – August 2020

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modelling cell

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# INTRODUCTION 1

## Population health needs, risks and vulnerabilities in the context of COVID-19

- Geography
- Demography – Population, Age, Gender, Population density, Ethnicity
- Socio economic data
- Housing
- Vulnerability
- Shielded patients
- Mapping risks and settings

## COVID-19 outbreak control plan theme settings

- Children settings – children's centres, schools/special schools
- Adults settings – care homes
- Other/ high-risk settings – workplace zones/businesses/transport access points/Military

## COVID-19 surveillance

- COVID-19 Infections
- NHS Pathways Data
- Deaths



# INTRODUCTION 2

- SARS-CoV-2 is a novel virus, much remains to be understood about transmission dynamics and effects on our population, so emerging intelligence is **preliminary** and **subject to change**
- Increasing amounts of COVID-19 intelligence are becoming available and so these datapacks aim to collate data from a variety of open sources for each district to explore and better understand potential population health needs, risks and vulnerabilities which exist at a local level, including **Local Outbreak Control Plan** theme settings.
- Local knowledge and intelligence are key when interpreting **localised transmission**, to identify common factors early enough and prevent further spread of COVID-19. Local Authorities know their areas and should work with Local Authority Public Health and Public Health England (PHE) Health Protection Teams (HPT) to provide insights on localised outbreaks/clusters to ensure an agile and flexible response. This is done in conjunction with **COVID-19 surveillance** to monitor COVID-19 disease and the impact of local social distancing measures.
- Whilst these datapacks provide a **population health overview**, they do not provide timely data to control localised outbreaks/clusters, led by the PHE HPT and therefore should not be used as a proxy for management of COVID-19.
- **Caution** is needed with interpreting some of these data e.g. increasing trends may reflect increased testing, changes in recording, coding or reporting; rather than a true increase in incidence. Likewise, the frequency and timing of updating of data sets differs and thus need to be contextualised.
- Further information from the data compendium where many of the data have been extracted from can be found on [Resilience Direct](#)

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# Population Health Needs, Risks and Vulnerabilities in the Context of COVID-19

# GEOGRAPHY

The Isle of Wight measures 23 miles by 13 miles and is located off the UK south coast separated from the mainland by the Solent;

Over half of its area is designated as AONB (Area of Outstanding Natural Beauty) and has just been awarded UNESCO Biosphere Reserve Status in recognition of the sustainable relationships between residents and local environment.



Mixture of urban rural areas:

- Rural areas with lower population density and possible geographical barriers to accessing services etc –West Wight

Urban areas centred around

- Newport
- Ryde
- Cowes / East Cowes
- Bay area
- pockets of deprivation
- dependent on seasonal employment

Isle of Wight's estimated population density in mid-2018 is 372.31 people/km<sup>2</sup> within a range of 25 to 9333 across 89 LSOAs.

The England-wide LSOA distribution is 2 to 102692 with a mean value of 4393.06 people/km<sup>2</sup>.

Key

Values for LSOAs within the selected boundary are shown.

The colours represent the quintiles:

- 6,499.01 to 102,692 pop/km<sup>2</sup>: 6 areas
- 4,327.01 to 6,499 pop/km<sup>2</sup>: 14 areas
- 2,558.01 to 4,327 pop/km<sup>2</sup>: 15 areas
- 733.01 to 2,558 pop/km<sup>2</sup>: 18 areas
- 2 to 733 pop/km<sup>2</sup>: 36 areas

Data

Numerator:

Estimated population: 141,538

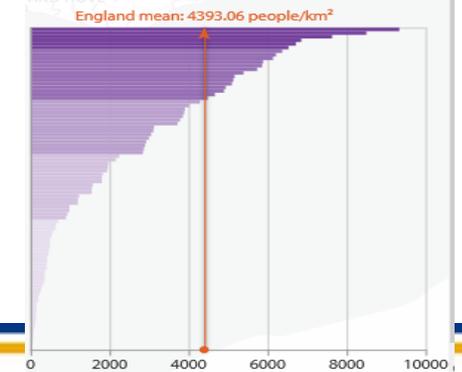
Denominator:

Total area: 380.16 km<sup>2</sup>

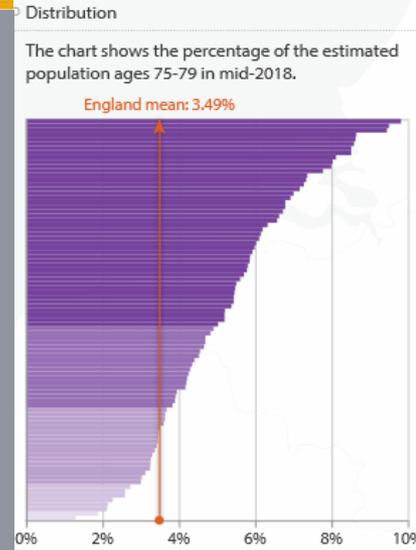
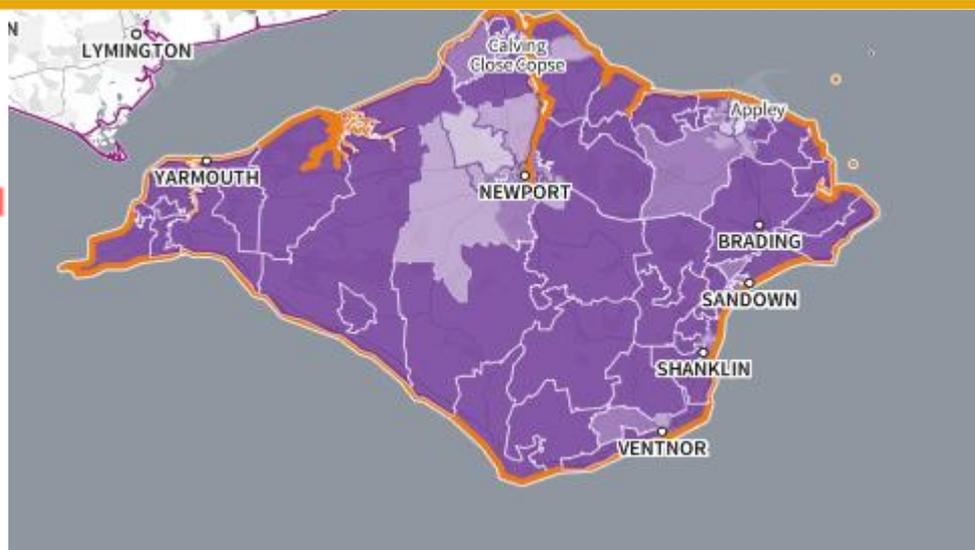
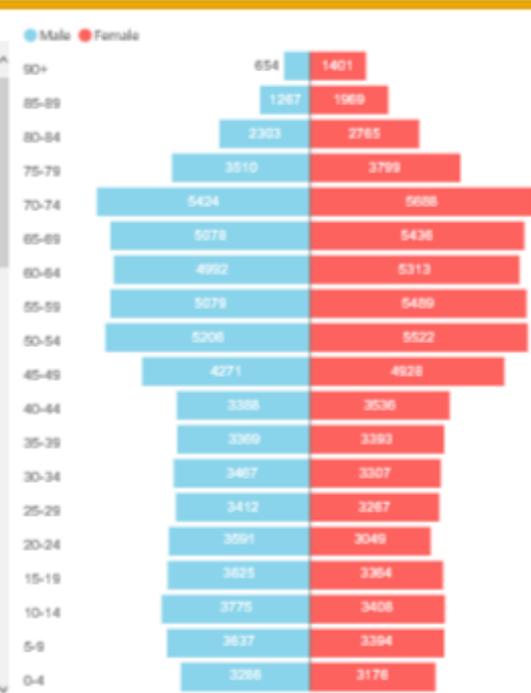
Small Area Population Estimates for mid-2018

ONS: [ons.gov.uk/.../populationestimates](https://ons.gov.uk/.../populationestimates)

The chart shows the estimated population per km<sup>2</sup> in mid-2018.



# DEMOGRAPHY – POPULATION, AGE, GENDER



Isle of Wight's estimated population in mid-2018 for ages 75-79 is 5.16% within a range of 1.3% to 9.82% across 89 LSOAs.

The England-wide LSOA distribution is 0.04% to 13.67% with a mean value of 3.49%.

### Key

- The colours represent the quintiles:
- 5% to 14%: 46 areas
  - 4% to 5%: 18 areas
  - 3% to 4%: 17 areas
  - 2% to 3%: 6 areas
  - 0% to 2%: 2 areas

### Data

Numerator:  
Persons: ages 75-79 estimate: 7,309

Denominator:  
Total estimated population: 141,538

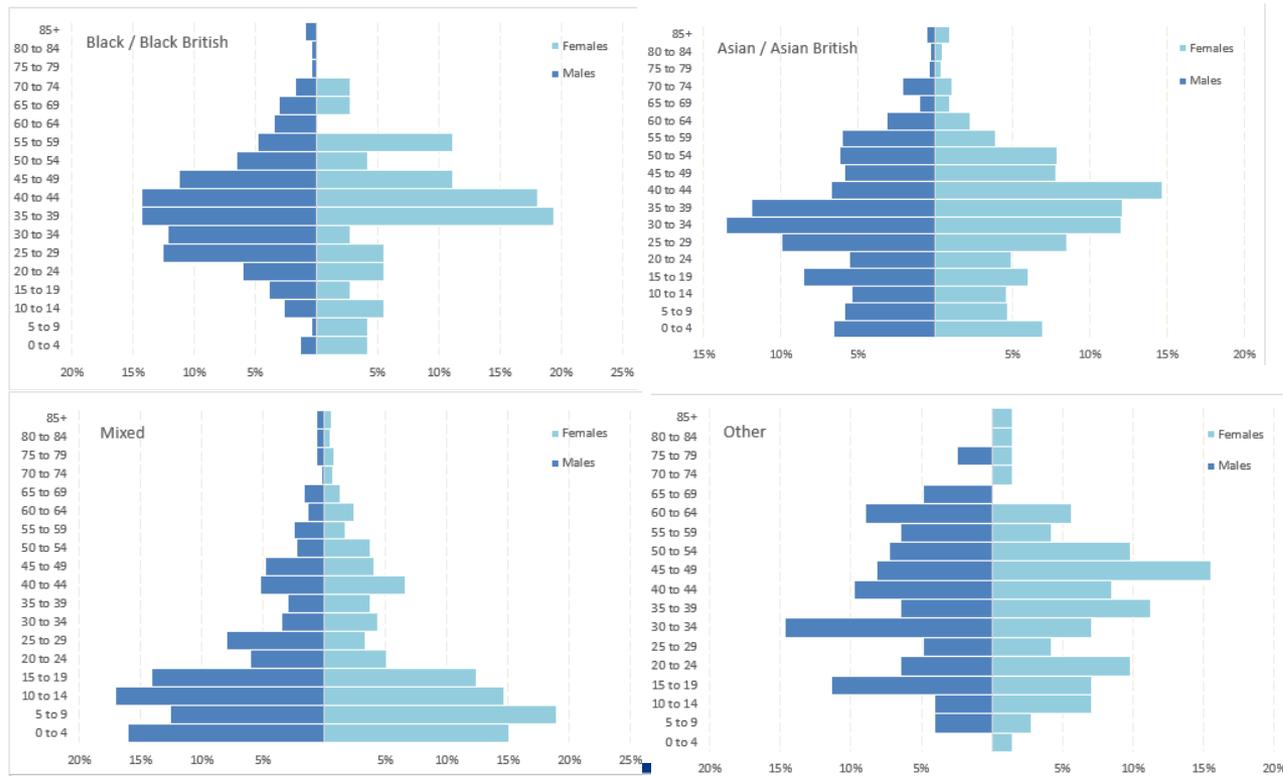
Small Area Population Estimates for mid-2018  
ONS: [ons.gov.uk/.../populationestimates](https://ons.gov.uk/.../populationestimates)

- Total population: 141,538 (mid-2018 estimates)
- Females: 72,204, Males: 69,334
- Over a quarter of the Island's population is 65 and over



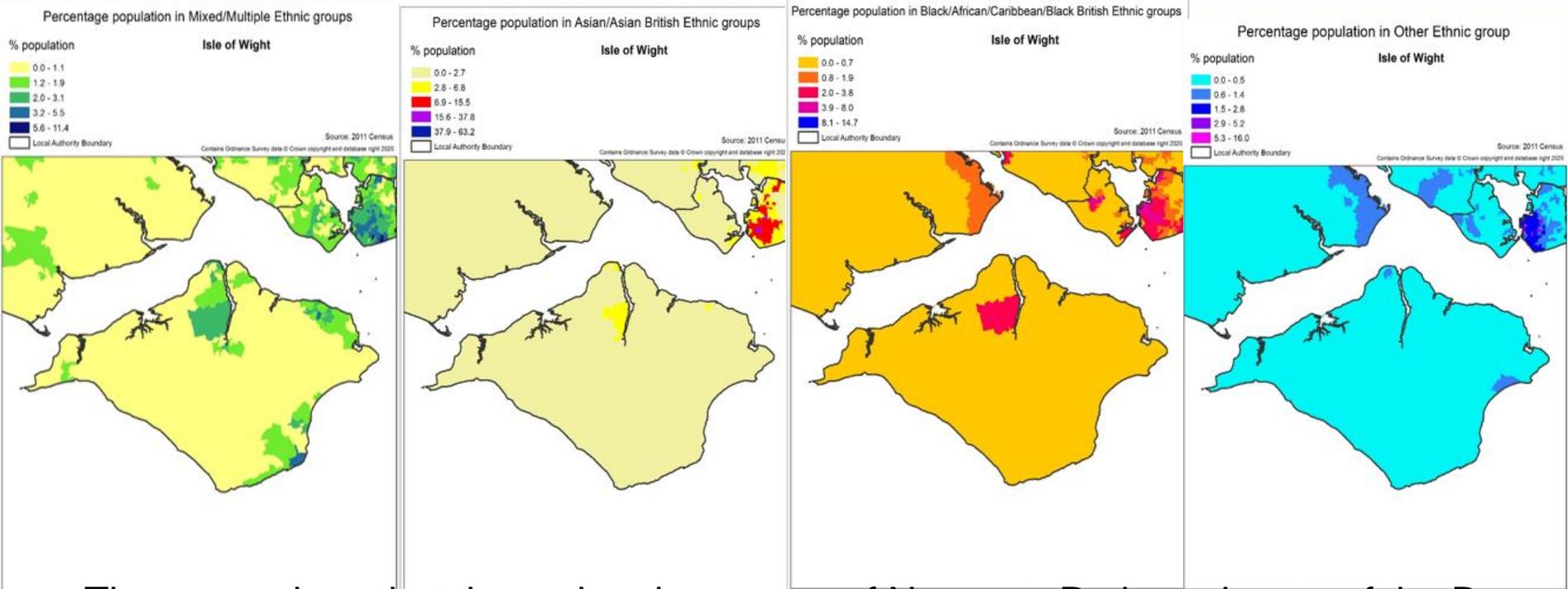
# Ethnic Group Population Structure

[PHE disparities report](#) published June 2020 reported that COVID19 mortality rates were higher in those in Black, Asian and Minority Ethnic (BAME) groups compared to those in White ethnic group.



- On the Island 97.3% of the population are white. The next largest groups are Mixed (1.2%) and Asian / Asian British (1.1%).
- The population pyramid for Mixed show residents are of a younger age with Asian / Asian British and Black / Black British having peaks from 25 to 49 yrs

# Ethnic Group Population Maps



- The maps show that the main urban areas of Newport, Ryde and parts of the Bay area have higher proportion of Black, Asian and Minority Ethnic residents
- The area with the highest levels of BAME includes the prison and hospital where the population is more ethnically diverse

# School Census Ethnic Group Data

- 16,843 pupils on roll in Island schools, 94% of whom are White, with 6% from other ethnic backgrounds – see breakdown below
- 59 languages spoken – the top 14 are shown opposite.

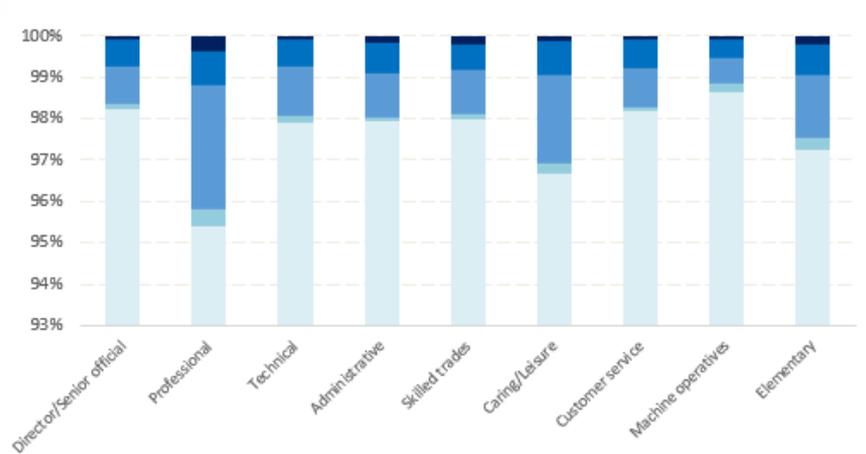


Language Description	Number of Pupils
Polish	131
Other than English	88
Romanian	27
Turkish	20
Arabic	18
Bengali	17
Hungarian	16
Bulgarian	15
Spanish	15
Chinese	12
Portuguese	12
Tagalog/Filipino	12
French	10
Tamil	10

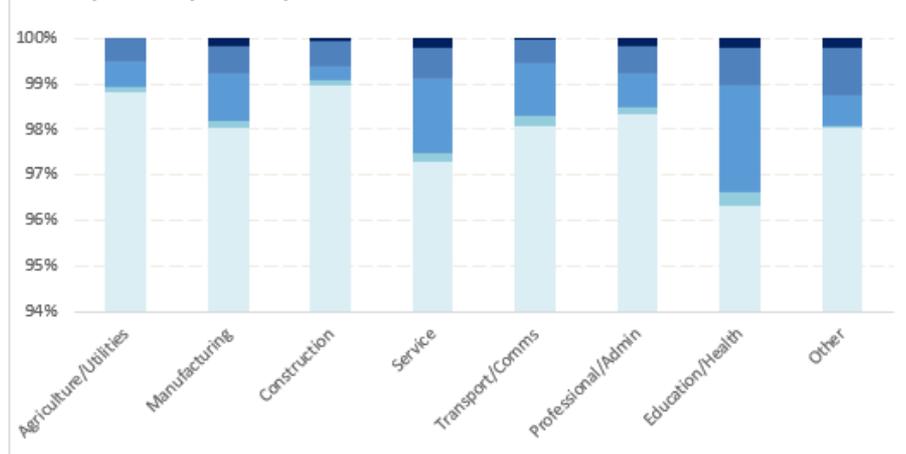
[PHE disparity report](#) recommended that communications work with community leaders is conducted to enhance the depth of reach into BAME communities, ensuring that guidance and media is culturally appropriate and available in different languages using different approaches to mitigate fears and encourage improved uptake of vital prevention services.

# Ethnic Group Sociodemographic Data

Occupation level by ethnic group



Industry sector by ethnicity



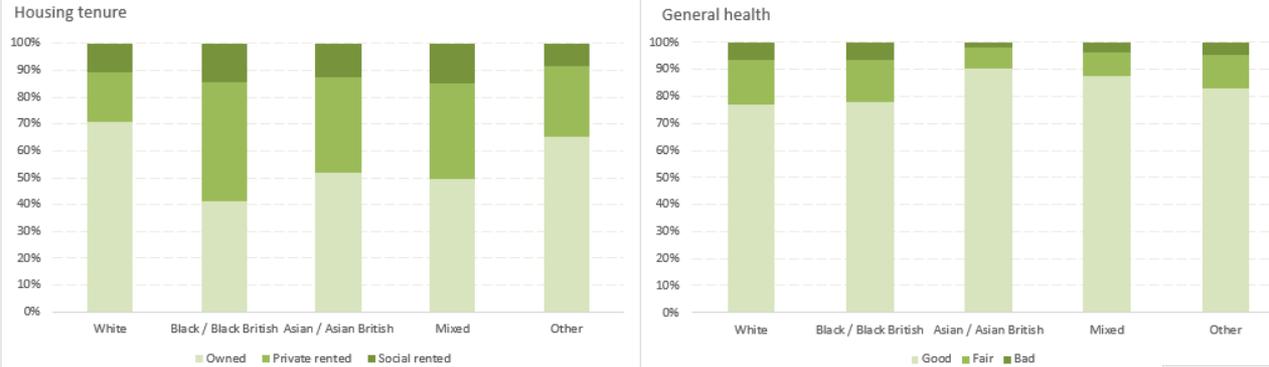
Residents from non-white ethnic groups more often reported working in professional, caring, and elementary occupations whilst white residents more commonly worked in senior official, technical, administrative or skilled trades. Elementary jobs are categorised as the lowest skilled type of occupation.

Residents from non-white ethnic groups were also more frequently working in the service industry (hotels, restaurants), followed by education/health and transport/communications and manufacturing sectors

[The July 2020 ONS Infection Survey](#) analysis found that infection rates are higher among patient- and resident-facing health and social care roles than other occupations

# Ethnic Group Housing Data

These charts show the breakdown of housing tenure and self-reported health by ethnicity. Followed by the proportion of people in each occupation level or employment sector within each ethnic group across all districts. This data is also sourced from the census.

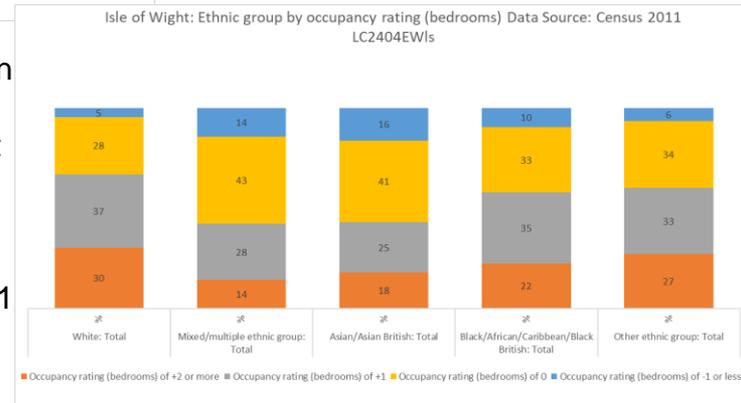


A lower proportion of Black / Black British, Mixed and Asian / Asian British population own their own home and are more likely to live in private rented accommodation.

White residents are less likely to report their health as good, which may be related to the older demographic of this population.

Occupancy rating provides a measure of whether a household's accommodation is overcrowded or under occupied. An occupancy rating of -1 implies that a household has one fewer room/bedroom than required, whereas +1 implies that they have one more room/bedroom than the standard requirement.

Data for the Island suggests that overcrowding is more prevalent in Asian/Asian British residents where 16% of these households have an occupancy rating of -1 or less and Mixed/ multiple ethnic groups where 14% have a -1 occupancy rating:



**The July 2020 ONS Infection Survey** found that rates of positive tests for COVID-19 appear lower for individuals who live in two-person-households than in larger households

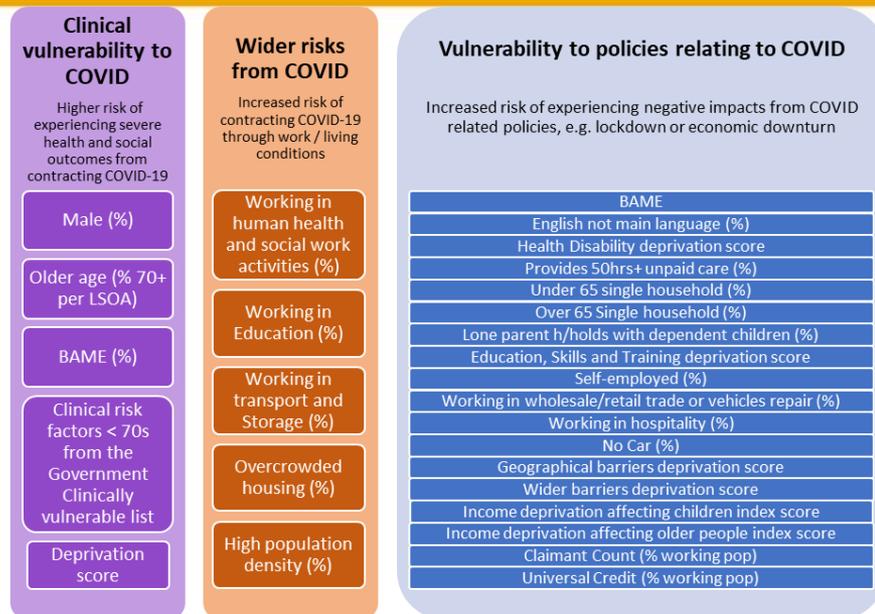
# COVID-19 Vulnerability Indices Summary

Assorted factors make people more vulnerable at different stages of the COVID-19 outbreak; response, recovery or both. Evidence shows an increased clinical vulnerability to severe outcomes from COVID-19 such as hospitalisation or dying for certain groups of people, as well as specific employment positions and living conditions also widely further increase risks. Additionally, some groups have greater vulnerability to the negative effects of the 'lockdown' and economic policies put in place in the response and recovery phases

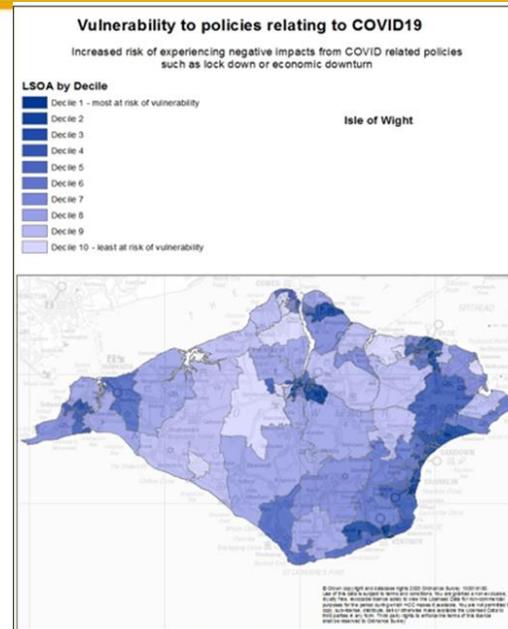
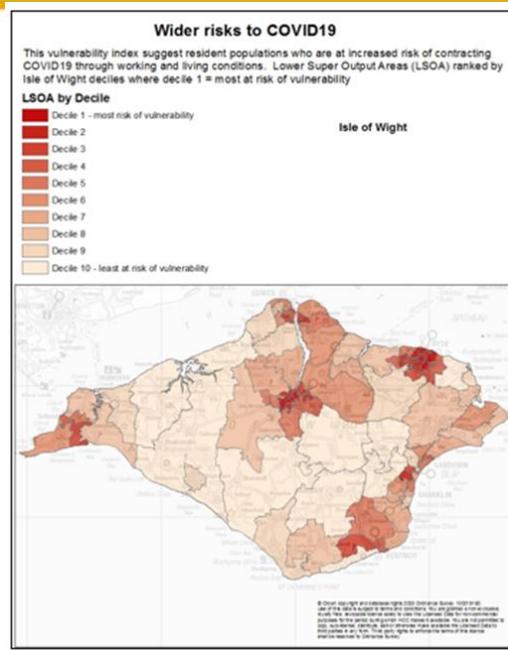
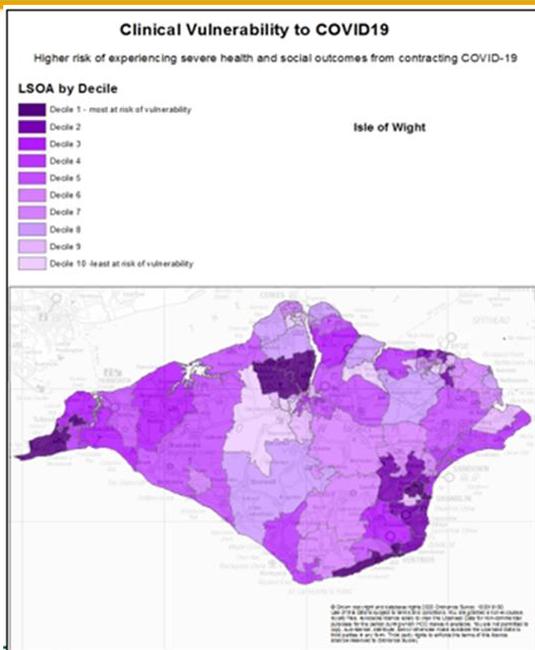
Three separate indices have been developed to support the range of approaches for the local authority in different stages and aim to help us understand the potential direct and indirect impact COVID-19 may have on our communities. **The indices are not intended to be used as a standalone tool but within the context of local knowledge and other available data.**

## Key points:

- Individual clinical and wider risks to COVID-19, and policies relating to COVID-19, have brought vulnerabilities into sharp focus.
- People facing the greatest deprivation are likely to experience a higher risk of exposure to COVID-19 and existing poor health puts them at risk of more severe outcomes if they contract the virus. However, it is difficult to untangle the interplay between clinical and wider risks, and the quantification of risk.
- Local authorities need to work with partners to consider policies to protect people at increased risk of severe COVID-19 disease.



# Covid-19 Vulnerability Indices - Maps



- Parts of Newport (related to prison - male, BAME, deprivation);
- Coastal regions – West Wight, Ventnor, Shanklin (older population)
- Parts of Ryde (BAME, male, deprivation)

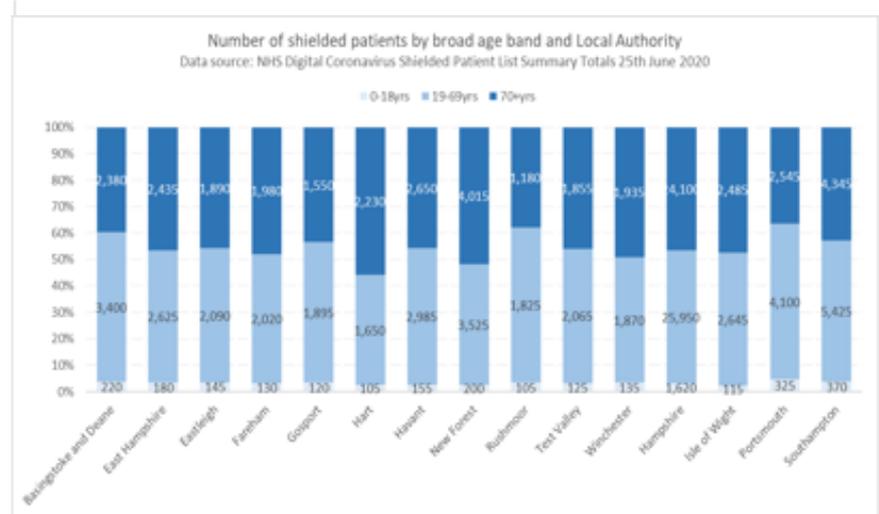
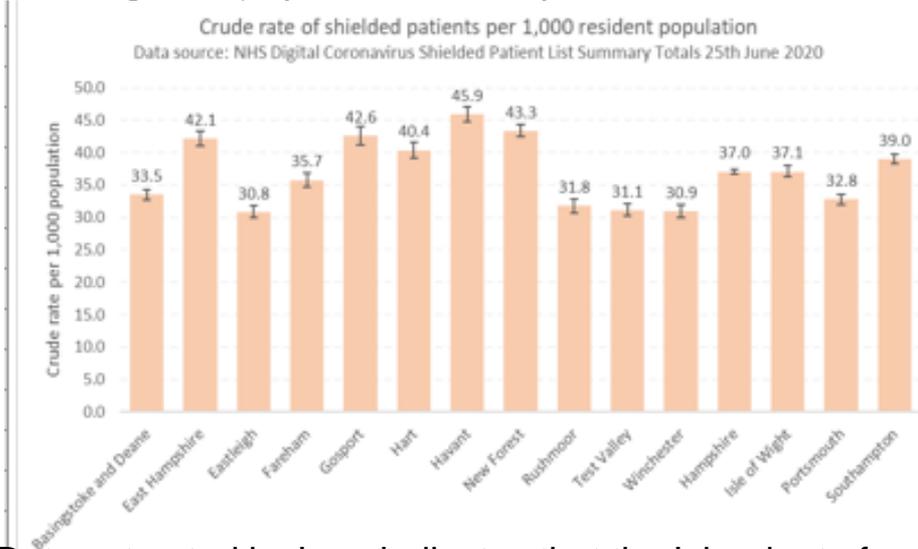
- Parts of the North and Central Wight – human health / social care, education, higher population density;
- Parts of South Wight – high population density
- Parts of West Wight

- More populated areas – parts of North and Central Wight – self employed, wholesale / retail trade, deprivation, universal credit
- Coastal regions – particularly parts of South Wight - working in hospitality, deprivation, single households, education, skills and training deprivation score
- Parts of West Wight – geographical barriers, deprivation

# Shielded Patients

Within the population, certain patients are at the highest risk of severe COVID-19 illness and ‘Shielding’ is an important strategy to protect them.

NHS Digital provides a Shielded Patient List (SPL) which is anonymous summary data of patient counts (age band & gender) by Local Authority



Data extracted in June indicates that the Island rate for shielded patients is 37.1 per 1,000 residents. This is statistically significantly higher than six of the other HIOW areas.

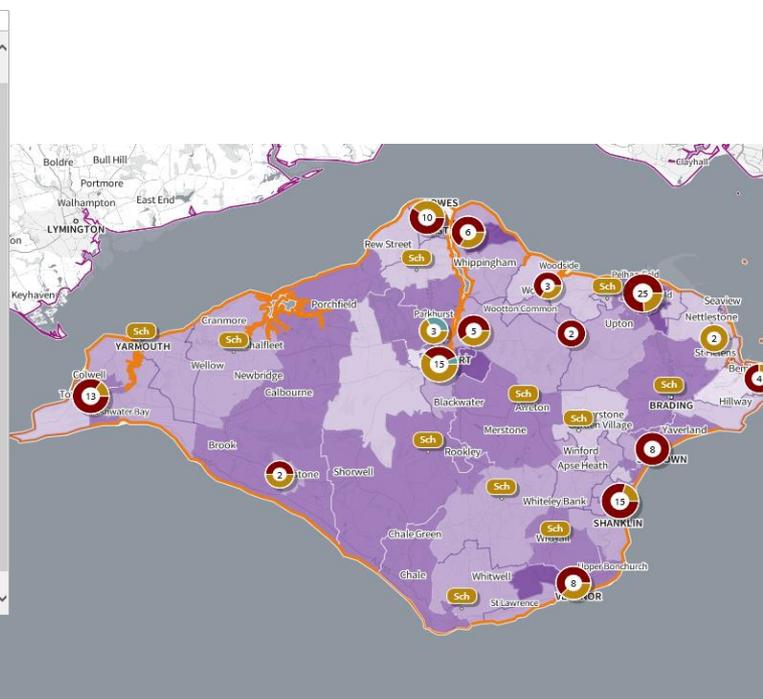
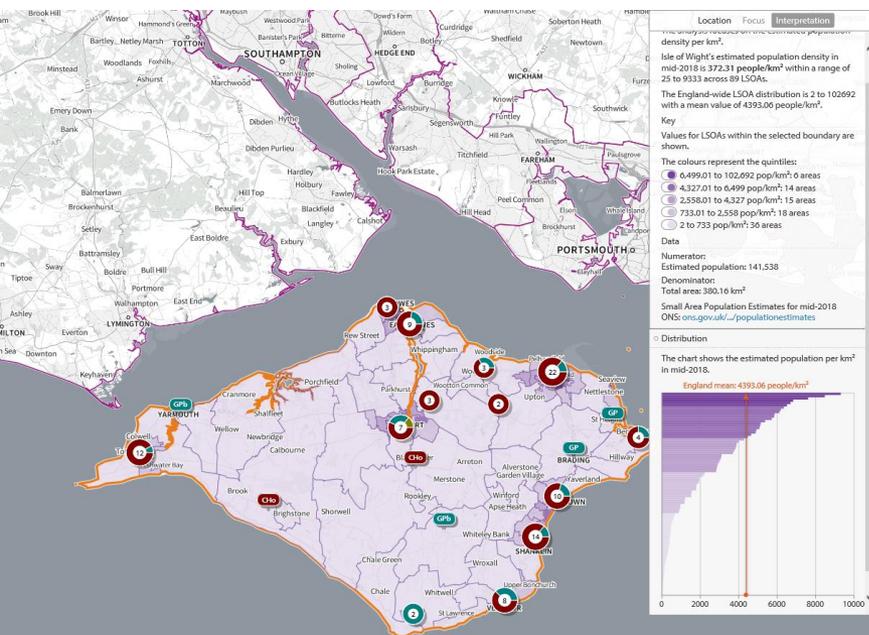
Half the shielded population are aged between 19 to 69 years and just under half (47%) are 70+

Area with the highest proportion of shielded patients include urban areas such as East Cowes and more rural areas of west/central wight and east/central wight



# Mapping risks and settings

Population density v/s location of care homes, GP Practices and mental health facility Indices of multiple deprivation v/s location of care homes and schools



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# COVID-19 outbreak control plan theme settings

# Education sites

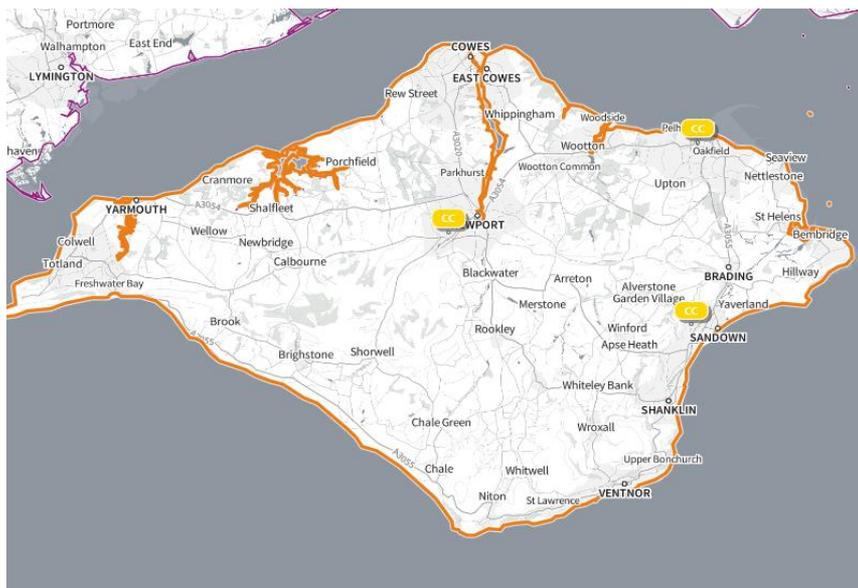
46 Schools, 2 special schools



- Sch All Saints Church of England Primary School, Freshwater, Freshwater
- Sch Arretton St George's Church of England Controlled Primary School, Newport
- Sch Barton Primary School, Newport
- Sch Bembridge Church of England Primary School, Bembridge
- Sch Binstead Primary School, Ryde
- Sch Brading Church of England Controlled Primary School, Sandown
- Sch Brighstone Church of England Aided Primary School, Newport
- Sch Broadlea Primary School, Sandown
- Sch Carisbrooke Church of England Controlled Primary School, Newport
- Sch Carisbrooke College, Newport
- Sch Chillerton and Rookley Primary School, Newport
- Sch Christ The King College, Newport
- Sch Cowes Enterprise College, An Ormiston Academy, Cowes
- Sch Cowes Primary School, Cowes
- Sch Dover Park Primary School, Ryde
- Sch Gatten and Lake Primary School, Shanklin
- Sch Godshill Primary School, Ventnor
- Sch Green Mount Primary School, Ryde
- Sch Gurnard Primary School, Cowes
- Sch Haylands Primary School, Ryde
- Sch Holy Cross Catholic Primary School, East Cowes
- Sch Hunnyhill Primary School, Newport
- Sch Lanesend Primary School, Cowes
- Sch Medina College, Newport
- SpS Medina House School, Newport Isle of Wight
- Sch Nettlestone Primary School, Seaview
- Sch Newchurch Primary School, Sandown
- Sch Newport Church of England Aided Primary School, Newport
- Sch Nine Acres Primary School, Newport
- Sch Niton Primary School, Ventnor
- Sch Northwood Primary School, Cowes
- Sch Oakfield Church of England Aided Primary School, Ryde, Ryde
- Sch Queensgate Foundation Primary, East Cowes
- Sch Ryde Academy, Ryde
- Sch Shalfleet Church of England Primary School, Newport
- Sch St Blasius Shanklin CofE Primary Academy, Shanklin
- SpS St Catherine's School, Ventnor
- Sch St Francis Catholic and Church of England Primary Academy, Ventnor
- SpS St George's School, Newport
- Sch St Helens Primary School, Ryde
- Sch St Mary's Catholic Primary School, Ryde
- Sch St Saviour's Catholic Primary School, Totland Bay
- Sch St Thomas of Canterbury Catholic Primary School, Newport
- Sch Summerfields Primary School, Newport
- Sch The Island Free School, Ventnor
- Sch The Isle of Wight College, Newport
- Sch Wootton Community Primary School, Ryde
- Sch Wroxall Primary School, Ventnor
- Sch Yarmouth Church of England Aided Primary School, Yarmouth



# Early Years settings



3 family centres:

- Newport
- Ryde
- The Bays



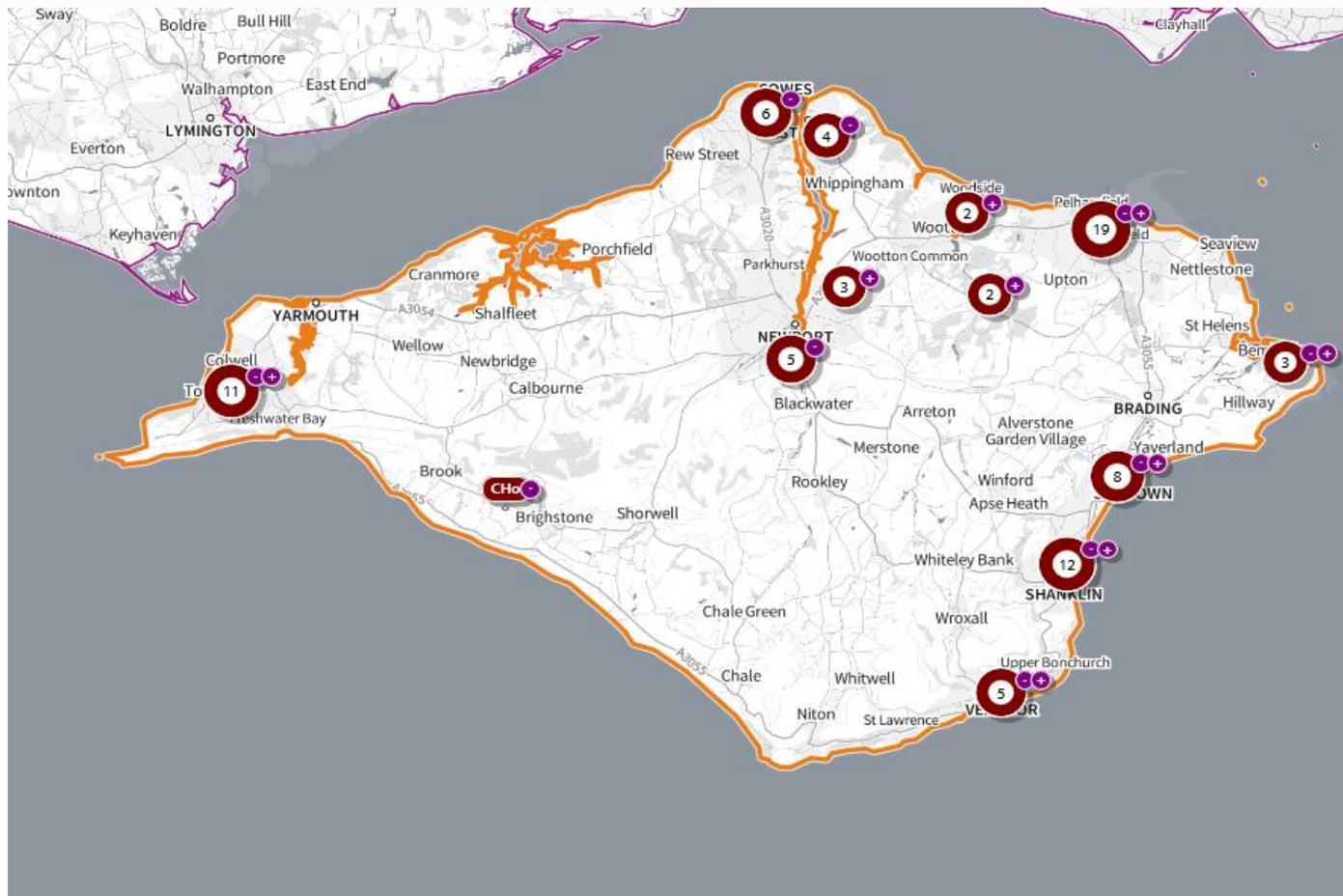
52 registered Early Years Providers

# Care home settings

75 Care homes

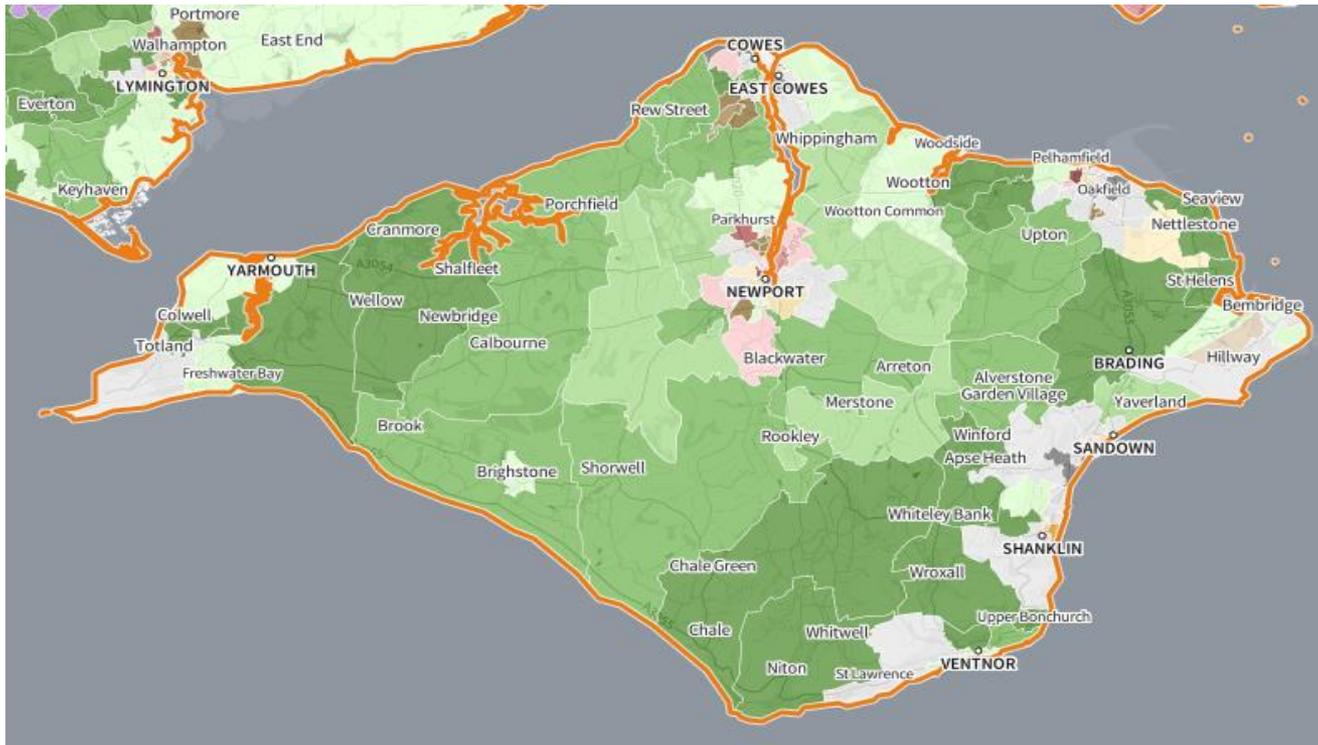
13 + With nursing

62 - Without nursing



# Workplace settings

The majority of the Island is classified as rural, with pockets of public sector, retail and manufacturing.



Workplace Zones

2011 Census Classification of Workplace Zones.

Key

- Retail**
  - Low density retail and wholesale
  - Market squares
  - Multicultural urban high streets
  - Traditional high streets
  - Shop until you drop
  - Eat, drink, shop and be merry
- Top jobs**
  - Global business
  - Administrative centres
  - Big city life
  - Regional business centres
  - Science and business parks
- Metro suburbs**
  - Metro suburban distribution
  - Cosmopolitan metro suburban mix
  - Independent professional metro services
  - Suburban metro infrastructure
- Suburban services**
  - Non-metropolitan suburban areas
  - Primarily residential suburbs
- Manufacturing and distribution**
  - Mining and quarrying facilities
  - Industrial units
  - Business parks
  - Manufacturing, energy and utilities
- Rural**
  - Rural with core services
  - Rural with non-local workers
  - Rural with mining or quarrying
  - Traditional countryside
- Servants of society**
  - Large scale education
  - Public administration
  - Major hospitals
  - Highly qualified workforces and prof. services
- Data**

Office for National Statistics 2011 workplace-based area classification  
[cowz.geodata.soton.ac.uk/cowz-uk](http://cowz.geodata.soton.ac.uk/cowz-uk)

# Transport access points

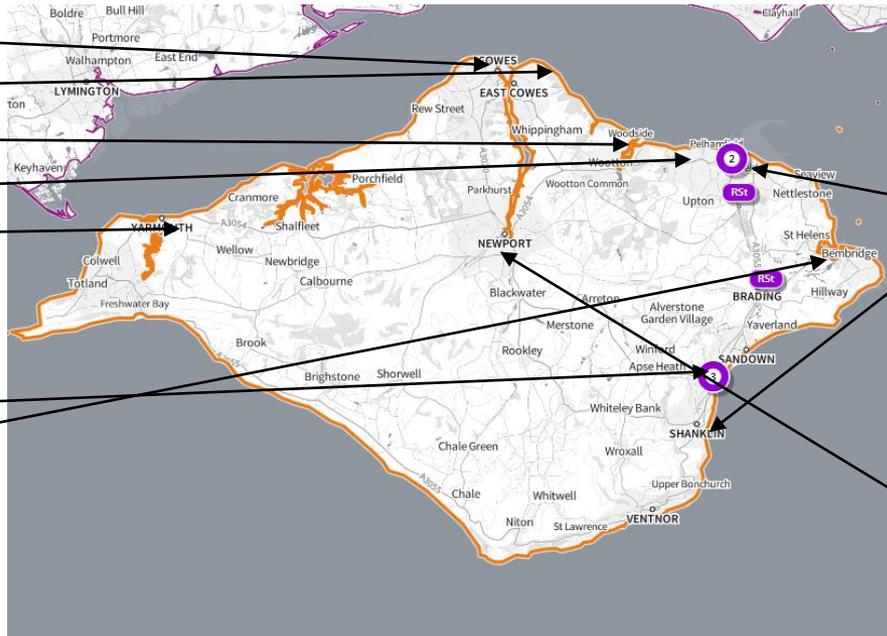
Incoming population particularly seasonally through ferry ports

Ferry ports:

- Cowes
- East Cowes
- Ryde
- Fishbourne
- Yarmouth

Private airports:

- Sandown
- Bembridge



Train stations:  
Ryde  
Shanklin

Bus station:  
Newport

# Isle of Wight Site Summary

## CoreStrategyProposals\_Map

Key Regeneration Area Settlement Boundary



Key Regeneration Area - Area Action Plan Bounda



Smaller Regeneration Area Settlement Boundary



Rural Service Centre Settlement Boundary



Employment Allocation



Wharf



Town Centre Boundary



Primary Retail Frontage



Open Space (2010 Audit)



Allocated Landfill Extension



Minerals Site



Mineral Safeguarding Area



Marine Conservation Zone



SAC



SPA\_buffer



SPA



RAMSAR



Area of Outstanding Natural Beauty



National Nature Reserve



Heritage Coast



Regionally Important Geological and Geomorphological Site



Site of Special Scientific Interest



Ancient Woodland



Tree Preservation Orders



Woodland\_TPO



Group\_TPO



Area\_TPO



Historic Park or Garden



Scheduled Monument



Listed Building



Local Nature Reserve



Site of Importance for Nature Conservation



Conservation Area



Locally Listed Building, Structure or Park



Flood Zone 2 - SFRA



Flood Zone 3 - SFRA



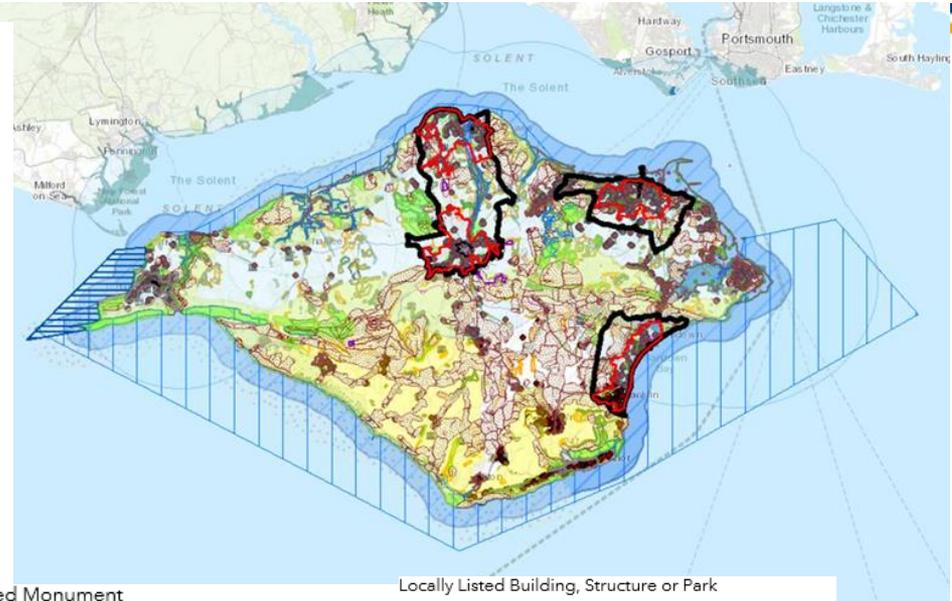
floodzone2



floodzone3



IOW Fluvial Area Potentially Susceptible to Climate Change



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# COVID-19 surveillance

# Covid-19 surveillance

- COVID-19 surveillance provides an indication about COVID-19 transmission - that infection rates within parts of the community have increased or may be about to, or whether particular groups of people are affected. This data is then used to inform public health action to help prevent and control COVID-19 disease.
- Multiple sources of data are used to understand the spread of COVID-19 disease and monitor COVID-19 activity:
  - Cases of COVID-19
  - NHS Pathways 111 data
  - COVID-19 deaths
- It is important to look at emerging trends, overall increases in trends, links with other outbreaks/clusters, areas that aren't settling as they should i.e. stubborn trends, particular vulnerable groups/settings/localities affected, comparator local authority trends, numbers above threshold and effectiveness of distancing/COVID-19 secure measures.
- No single piece of data tells the whole story and interpretation should be based on a consideration of patterns and trends across all indicators to provide situational awareness, and be viewed in the context of any policy changes.

# Covid-19 Surveillance indicators



COVID-19 infection rates - Daily new confirmed cases and rolling trend by Local Authority



NHS Pathways Data - Number of NHS Pathways triages through 111 and 999, and online assessments in 111 online which have received a potential COVID-19 final disposition by CCG



COVID-19 deaths - Cumulative total deaths by Local Authority



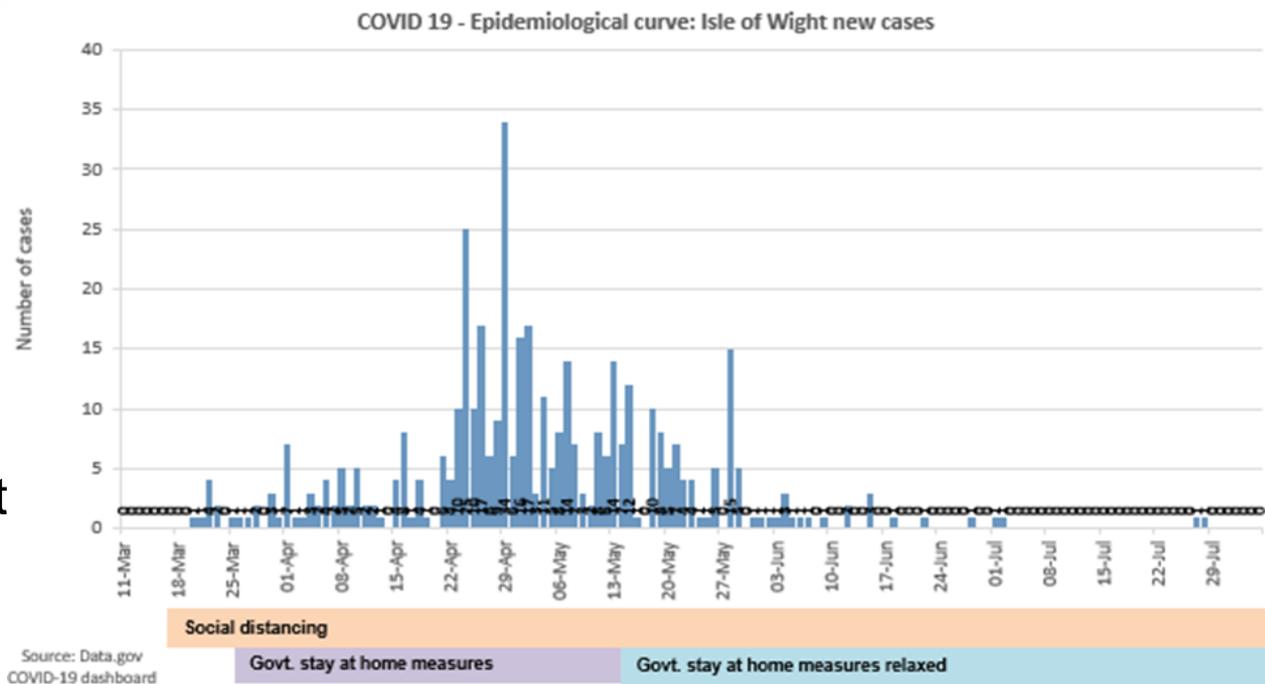
National Syndromic Surveillance Summary - Summary of COVID-19 surveillance systems

# Infections: Confirmed C-19 cases, Cumulative and Daily

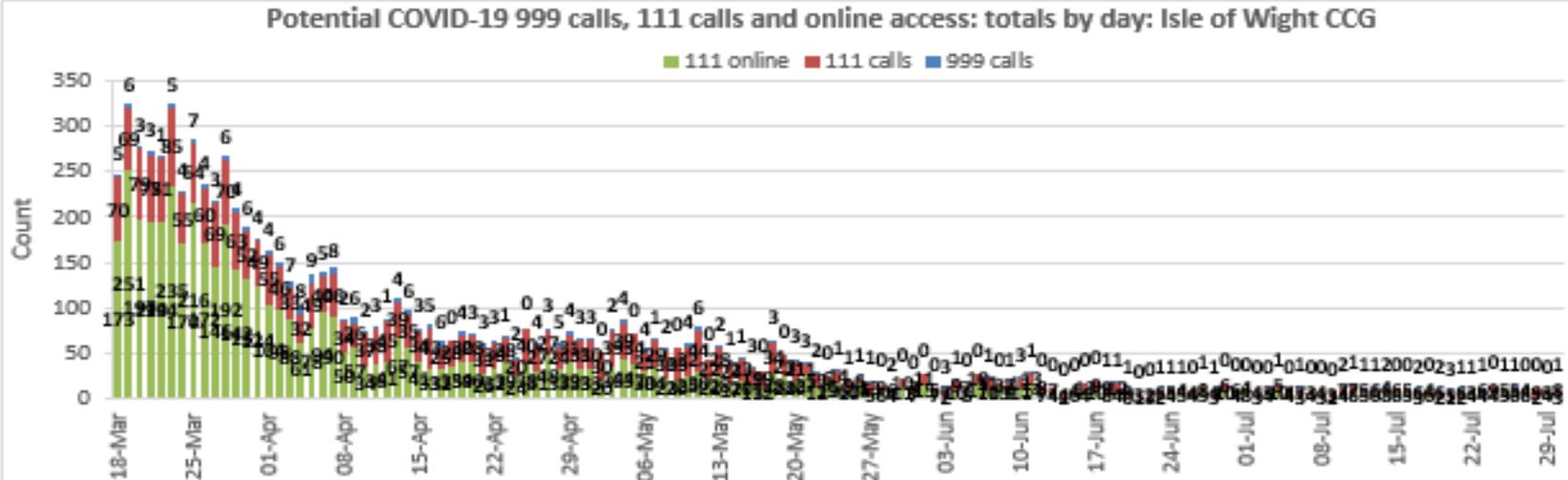
Snapshot as at 4<sup>th</sup>  
August 2020

423 confirmed cases

Daily cases have  
reduced from a peak at  
the end of April and  
beginning of May



# NHS Pathways Data



Source: NHS Digital Pathways - potential COVID-19 open data

The chart above shows the total number of potential COVID-19 999 calls, 111 calls and 111 online for the selected CCG. Note that the above chart shows a count of people accessing these services, therefore it is possible that several people have accessed multiple services and appear in more than one category; but, due to the nature of the data it is not possible to understand the extent of possible couple counting. Data is from NHS Digital Pathways - potential COVID-19 (open data). The combination of this indicator with other information could be used as an early warning signal e.g. a second wave of infections.

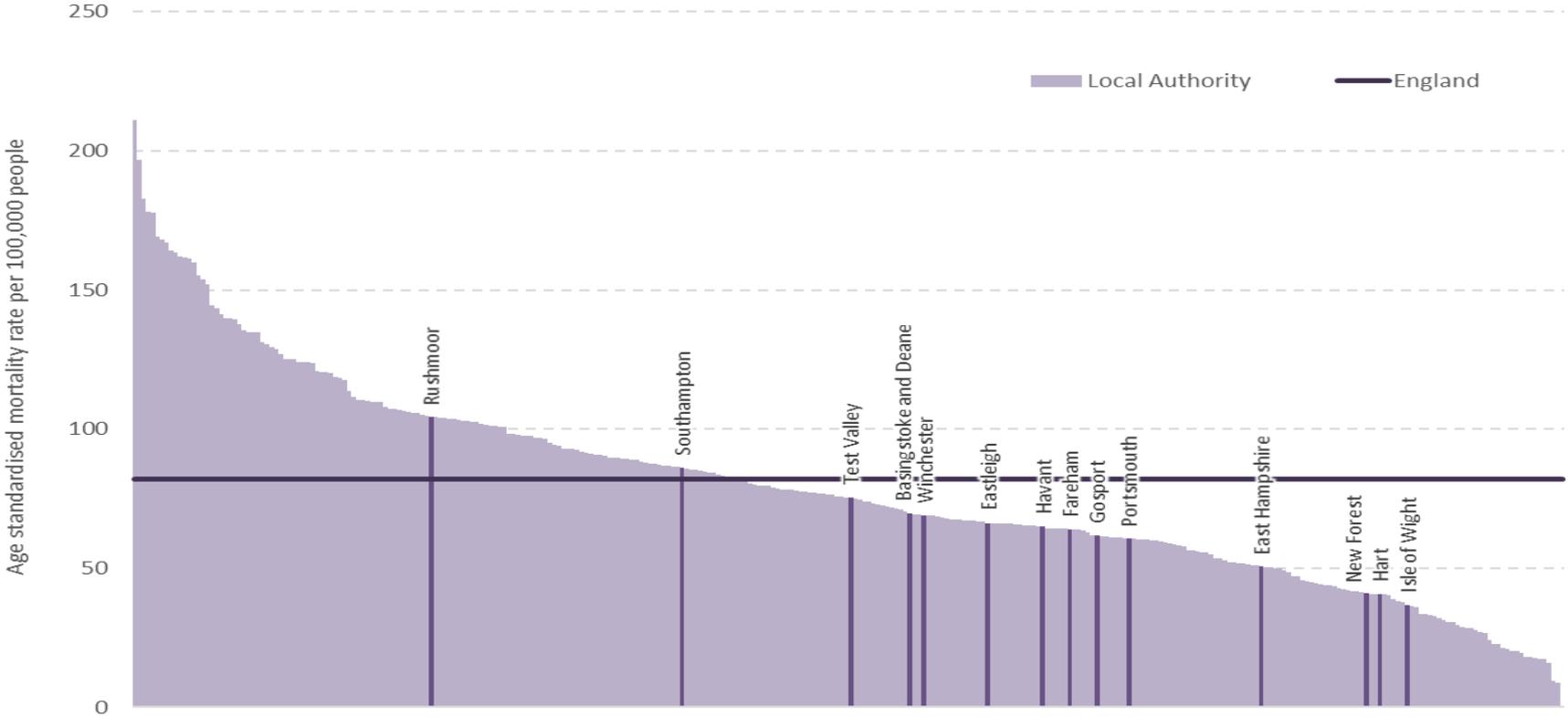
The chart shows a decline in the number of NHS Pathways triage assessments for a potential COVID-19 final disposition



# Mortality Rates

Age standardised mortality rates for deaths with COVID-19 mentioned on the death certificate between 1st March and 31st May

Source: Number of deaths and age-standardised rates by sex, local authorities in England and Wales, Office for National Statistics



# In Summary – What should we do knowing this?

- The data suggest that the Isle of Wight has several COVID-19 vulnerabilities – a mix of urban areas with a higher BAME population and a rural population with a higher shielded population
- Incoming population flows through ferry port, private airports and private boats
- **So what should we do?**
- Share local soft intelligence with both Local Authority Public Health (LAPH) and [Public Health England \(PHE\) Health Protection Teams \(HPT\)](#) contacts, to complement outbreak/incident control. Use this local knowledge and intelligence when investigating/interpreting localised transmission/outbreaks/clusters to provide insight on contact points
- Work with Local Outbreak Control Plan officers, who lead on controlling localised clusters
- Identify common factors early enough to contain and prevent further spread of COVID-19
- Detail possible places where people are likely to become infected for timely local decision making and more targeted control measures; Ensure local areas of high risk are COVID-19 secure
- Be vigilant around COVID-19 surveillance for future spikes/surge in infection



ISLE *of*  
WIGHT  
C O U N C I L