



Net Zero Communities (NZCom)

Work Package 8

Future Energy Scenarios & vulnerability

Version	Written/ Edited	Released	Notes/Changes
1	Tim Jones/ Chris Coonick	11 February 2022	



Integrating vulnerabilities into the Future Energy Scenarios

In order to develop a methodology for other communities to follow in establishing their own future energy scenarios it's important that they can tailor their approach to their own specific localised vulnerability characteristics.

This paper looks at what the specific vulnerability characteristics or challenges (individual or compound) that can be identified in the Wadebridge & Padstow Community Network Area (WPNA) and may impact on the outcomes of the future energy scenarios.

Sources of information

When thinking about vulnerable households the Wadebridge & Padstow Community Network Health Profile (Annex A) is useful, but hasn't been updated since 2017, but gives a good feel for some of the issues in the area. Other sources of information included:

- Let's Talk Cornwall website <https://letstalk.cornwall.gov.uk/>
- Public Health's Joint Strategic Needs Assessment (JSNA) <https://www.cornwall.gov.uk/health-and-social-care/public-health/joint-strategic-needs-assessment/>
- Cornwall Council's Community Insight mapping tool <https://cornwall.communityinsight.org/>

Localised situation

Most of the issues around vulnerability in the WPNA are fairly typical for Cornwall; in fact, there are areas elsewhere in the county that are much more concerning. Relative to most of Cornwall the network area generally tends to be healthier, with higher educational attainment and is more affluent. The 2019 [indicies of deprivation](#) for the network area show that none of the Lower Layer Super Output Areas (LSOAs) of the WPNA in the bottom 3 deciles, with Wadebridge Gonvena and St Matthews the least deprived, in the 7th decile.

Ageing population

Age of the population as a concern; in the context of the transition to low carbon this is going to be a major factor. Linked to the ageing population will be an issue about appetite for change, and willingness to take risk. Community Energy Plus have experience with people who have refused to consider low carbon technologies on the basis that it is unfamiliar and "not what we're used to", and "we're stuck in our ways". Where we have identified the issues of confidence and knowledge about newer technologies, it is highly probable that there will be a correlation between age and willingness to act, so an ageing population will have to be taken into account.

Housing stock

The more significant challenge is finding ways to address 'hard to treat' properties. There are a lot of older, energy inefficient housing and the demands of transitioning to lower carbon energy consumption are bringing this into sharp focus.

WPNA does not have any Council registered Park Home sites. However, there are people living in single static units in this area, as opposed to sites of multiple units. Across the county there is a rise in people living permanently in units that were designed for holiday accommodation. There are a lot of these in WPNA, particularly east of Padstow. Unless there is a dramatic change in housing provision over the next 30 years, as the housing crisis gets worse, it is likely we will see higher numbers of people forced to live in mobile homes.



Internet connectivity

It has been hard to assess connectivity and 3G/4G coverage for the area. Community Energy Plus routinely meet people who have problems with their smart meters not being able to connect to the network, although this tends to be more of an issue further west of the WPNA. Superfast Broadband has been rolled out to the more populated areas, but basic mobile connectivity continues to be patchy in more rural settings and for Cornish coastal communities.

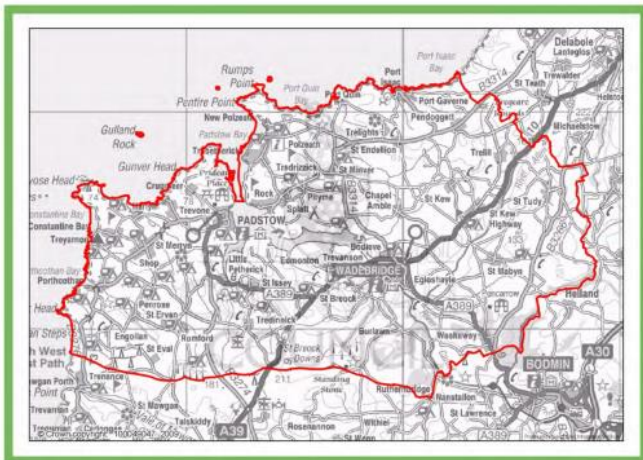
Engagement and vulnerability

It's important to understand the potential role of key actors (care workers etc) in identifying vulnerable households, the need for Future Energy Scenarios to reflect the changing nature of vulnerability – ageing population, etc, and the interaction between vulnerabilities and 'hard to reach' parts of the community. Connecting with 'harder to reach' groups is something that works well in Cornwall across the various partnerships that work across the public sector and charity and community sector.



Annex A - Wadebridge & Padstow Community Network Health profile

Wadebridge & Padstow - Introduction








The Wadebridge and Padstow Community Network Area (CNA) is situated on the north coast of Cornwall and is made up of fourteen parishes; Egloshayle, Padstow, St Breock, St Endellion, St Ervan, St Evel, St Issey, St Kew, St Mabyn, St Merryn, St Minver Highlands, St Minver Lowlands, St Tudy, and Wadebridge. The coastal town of Padstow receives the vast majority of the tourist influx during the summer months.

This profile gives a picture of people's health across the Wadebridge and Padstow Community Network Area and complements the wider socio-economic profiles which can be accessed at <http://cornwall.communityinsight.org/>. It is designed to help build an understanding of the community's needs, and in doing so help identify where resources could be targeted to improve health and wellbeing and reduce health inequalities.

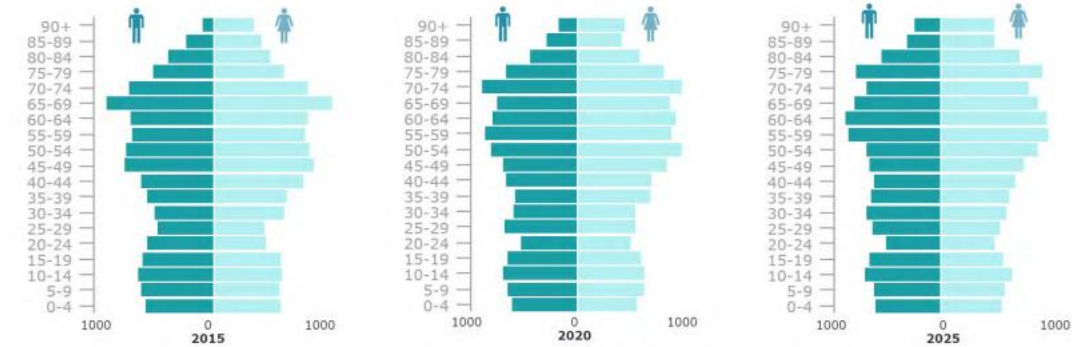
Electoral Divisions ¹
Padstow
Wadebridge West
Wadebridge East
St Issey St Tudy
St Minver St Endellion
CCG Localities ²
North Cornwall

Key Statistics:

-  Current population is 20,614; 4% of Cornwall's total population and projected to increase to 21,342 by 2025
-  No residents live in the 20% most deprived neighbourhoods in England which are known to have the poorest health outcomes
-  26% of children measured in the National Child Measurement Programme were found to be overweight or obese
-  39% of the over 65s live alone
-  Ranks 7 out of 19 for under 18 conceptions in Cornwall



Wadebridge & Padstow - Population

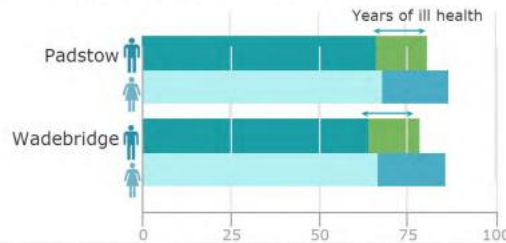


- Current Population 20,614; 4% of Cornwall's total**
- Projected increase to 21,342 by 2025**
- 80.2 - Male Average Life Expectancy**
- 85.9 - Female Average Life Expectancy**
- Difference between LE and HLE can be up to 19 years**

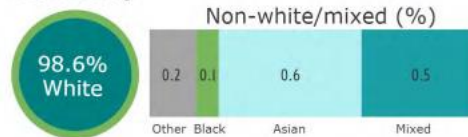
The latest population estimates for Wadebridge & Padstow CNA stand at 20,614. Current projections suggest an overall population increase of 728 (4%) compared to 9% across Cornwall by 2025 ranking 13 out of the 19 CNA areas for growth over the period. Higher increases are expected in older age groups, specifically the 75 to 84 age group (+41% by 2025) and 85 years or above (+34% by 2025). The population of those aged 85 or above is expected to increase by more than 38% by 2025 across Cornwall.

Healthy life expectancy (HLE)³ - estimate of how many years' people might live in 'full health'

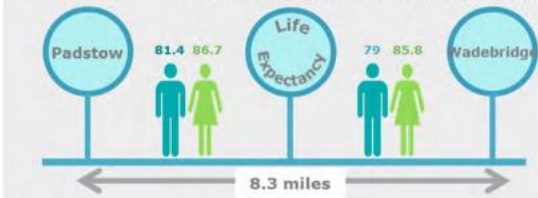
HLE varies across Cornwall; the most recent estimates suggest that boys born in 2015 are expected to live 79.6 years on average, 64.6 in a 'healthy' state and girls 83.4 years on average, 64.3 being 'healthy'. In Wadebridge & Padstow CNA boys born in 2015 are expected to live 80.2 yrs on average, at best 66.7 of these in a 'healthy' state (Padstow) at worst 64.5 yrs (Wadebridge). Girls born in 2015 would be expected to live 85.9 years on average, 67.8 of these years on average being 'healthy'.



Ethnicity⁶



Life expectancy (LE)⁴ highlights spatial inequalities, where some areas experience better health than others

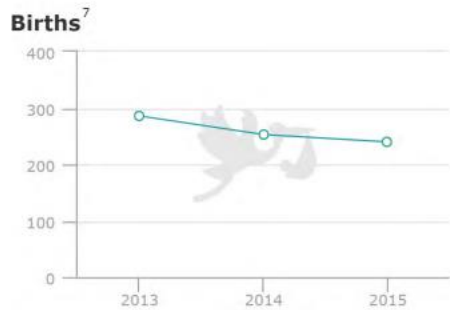


In men life expectancy is highest in Padstow (81.4 yrs) and lowest in Wadebridge (79 yrs) a variation of 2.4 years. In women, it is also highest in Padstow (86.7 yrs) and lowest in St Kew (85.1 years) a variation of 1.6 years.

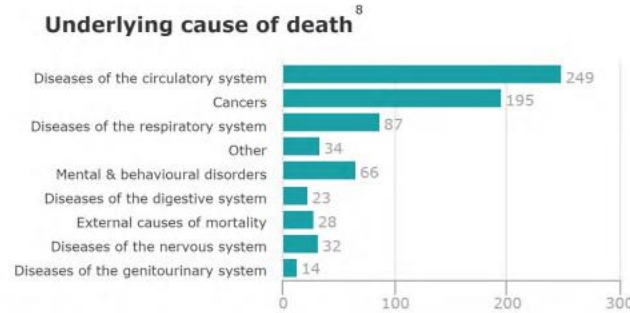
Across Cornwall life expectancy (at birth) is 79.6 years for men and 83.4 for women. Life expectancy in the most deprived 10% of areas is 6.6 years shorter than in the least deprived 10% for men. In women, this figure is 5.1 years.



Wadebridge & Padstow - Population



Births in Cornwall have levelled off after a period of growth in recent years, latest figures show about 2,300 births in 2016, with general fertility rate remaining similar to England. In Wadebridge & Padstow figures show an increase from 153 in 2013 to 193 in 2015.

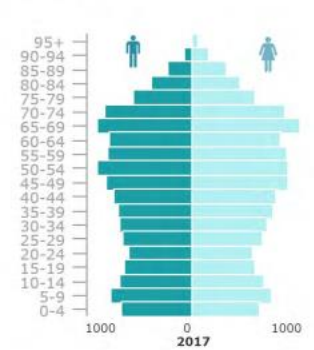


The table above shows underlying cause of death (disease or injury leading directly to death) for deaths registered between Dec 2013 and Dec 2016 in the Wadebridge & Padstow CNA. There were 728 deaths over this period, 34% attributable to disease of the circulatory system.

2017

- 193 Births in 2015
- Number of births decreasing
- Circulatory disease main cause of death
- Average 11,000 registered patients per GP Practice
- Increased migration to Cornwall

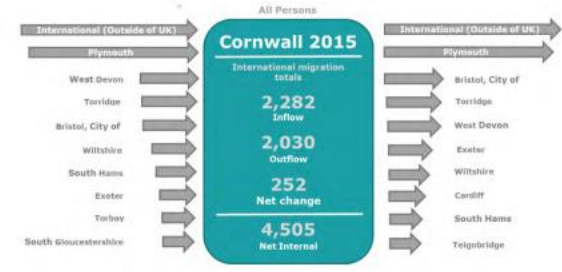
GP Registration⁹ - numbers of people registered



Figures are from January 2017 and will differ from the ONS Mid-Year population estimates (although they are factored into them). GP Registrations provide a useful 'actual count' but may slightly over or under estimate populations, e.g. people may leave the area but not de-register from their GP or may not register with a GP at all.

% of GP registration	0-24	25-64	65 & over	Total
3 GP Practices	25.76	48.99	25.25	32,356

Migration¹⁰



It is estimated that 16,954 residents moved from Cornwall to other local authorities in England and Wales between July 2014 and June 2015, an increase of 5% compared with a year earlier. Over the same period it is estimated that 21,459 people moved to Cornwall from other local authorities. The chart above shows the top 10 local authority moves to and from Cornwall between July 2014 and June 2015. International migration in 2015 (people moving to Cornwall from outside of the UK) accounted for 2,282 with 2,030 moving out resulting in a net increase in migration of 252.

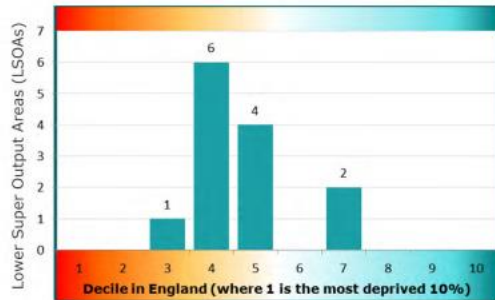


Wadebridge & Padstow - Inequalities



Deprivation¹

Overall, Cornwall is ranked the 143rd most deprived area out of 326 local authorities in England (where 1 is the most deprived), using the Index of Multiple Deprivation 2015.



Population in the 20% Most Deprived Areas	No. of LSOAs	No. of People	%
Cornwall	44	68,179	15%

None of Wadebridge & Padstow's Lower Super Output Areas (LSOAs) are in the most deprived 20% of LSOAs nationally, unlike other areas of Cornwall. Although there is no official cut-off point for 'deprived areas', 20% is commonly used nationally and locally.

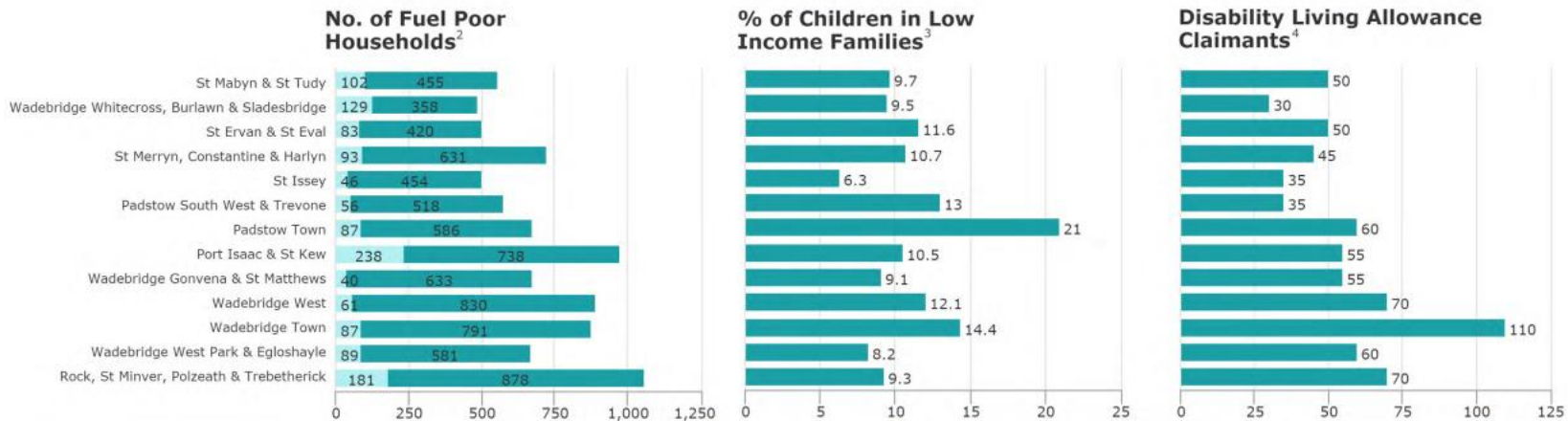
- No Areas in 20% most deprived
- None of the Wadebridge & Padstow population deprived
- 14.1% in fuel poverty
- Average 11.2% Children in low income families

Fuel poverty is defined by a combination of 3 factors: household income; fuel prices; and household energy requirements. The rate of fuel poverty in Cornwall in 2014 was 14.9% (36,217 households). Overall, Wadebridge & Padstow accounts for 14.1% of fuel poor households in Cornwall, though this varies by area.

% of under 16s in low income families continue to decrease in England. Overall, Wadebridge & Padstow falls below the national average, however, some areas have seen an increase in poverty over the last 2 years reported. Growing up in poverty adversely affects children's health & wellbeing and is associated with poor health and life chances in adulthood.

In November 2016 there were a total of 25,640 Disability Living Allowance (DLA) claimants in Cornwall.

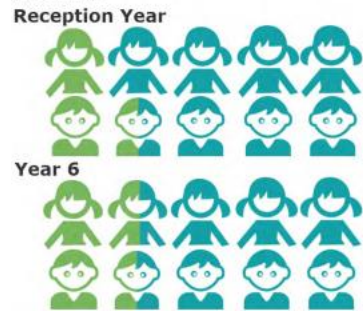
3% (725) of those Claimants reside in Wadebridge & Padstow CNA, and varies considerably by area and age.





Wadebridge & Padstow - Inequalities

National Child Measurement Programme (NCMP)⁵



Reception class and year 6 children in schools across Cornwall are weighed and measured annually. In 2015 across Wadebridge & Padstow 116 (22%) children in reception (4-5 years) were overweight or obese with a further 153 (31%) in Year 6 (10-11 years).

Childhood Immunisation Coverage - MMR⁶



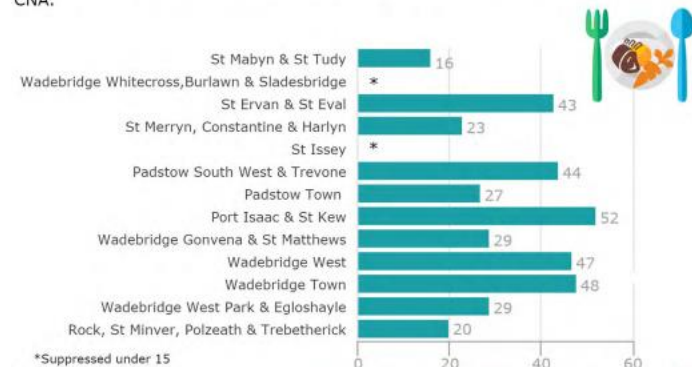
MMR is a combined vaccine protecting against 3 separate illnesses – measles, mumps and rubella (German measles) – in a single injection. Across Cornwall the average MMR vaccination rate (2013/14-15/16) at 24 months was 90.3%. 2nd dose vaccinations at 5 years for Cornwall was 91%.

2017

- 26% children (Reception & Yr6) overweight or obese
- MMR vaccinations are in line with local and national rates
- 2% receive free school meals
- 3% children had teeth extracted
- 30.2% adults inactive

Free School Meals⁷

Children are eligible if their parents receive certain benefits. Across Cornwall there are 16,105 children in receipt of free school meals, with 401 (2% of total children in receipt of free school meals) living in the Wadebridge & Padstow CNA.



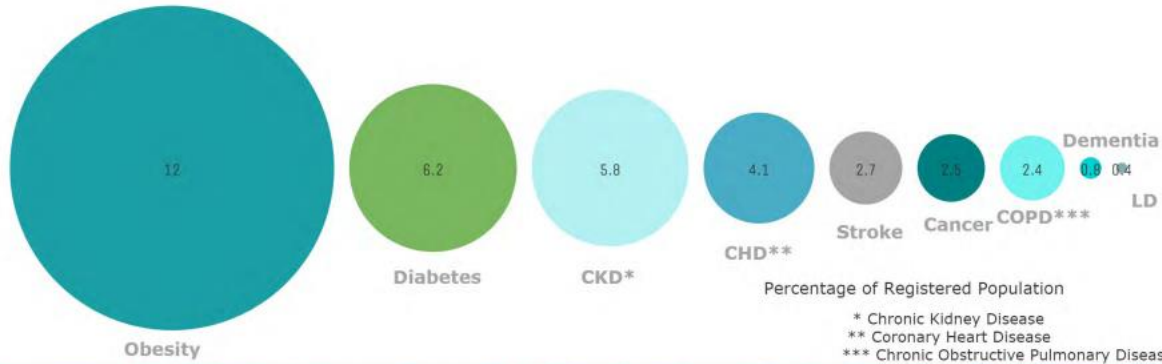
The level of dental decay in five-year-old children is a useful indicator of the general health and wellbeing of young children. Between 2013 and 2015, 1650 children had teeth extracted, 55 (3%) from the Wadebridge & Padstow CNA.

In 2015 54.7% of adults across Cornwall are classified as physically active according to the Chief Medical Officer's guidelines but this remains below the England figure which stood at 57.0%. A physically active lifestyle can lower risk of cardiovascular disease, coronary heart disease and stroke by 20-35%. In older adults, physical activity is associated with increased functional capacities.





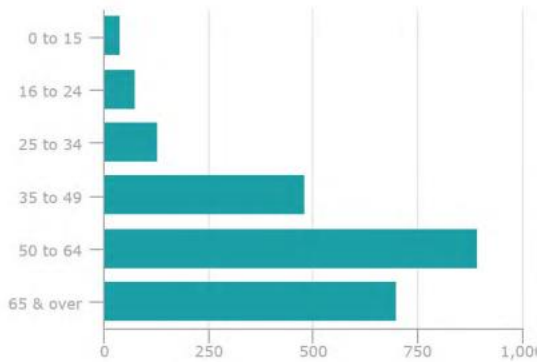
Wadebridge & Padstow - Risk Groups



- 12% patients Obese compared to 11.8% in Cornwall
- 6.2% patients Diabetic compared to 6.3% in Cornwall
- 5.8% patients CKD compared to 5.3% in Cornwall
- Majority of Carers over 35
- 39% over 65s live alone

GP practices record details of particular long term conditions on the Chronic Disease Register,¹ which may count patients with one specific disease or condition, or may include multiple conditions. Above is the 2015/16 recorded prevalence of selected long term conditions. Across Cornwall the obesity register has the highest recorded number of patients. Please note that a low recorded number may either indicate low prevalence or low diagnosis, therefore, figures should not be seen as 'good' or 'bad'.

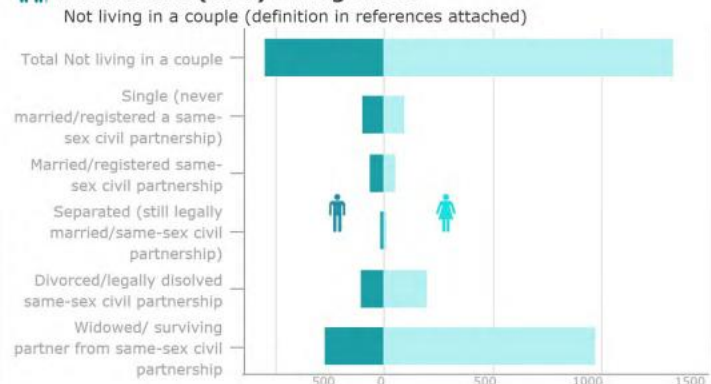
Carers by age²



Around 11% (2,327) of residents in Wadebridge & Padstow provided unpaid care. The Wadebridge & Padstow rate was similar to the Cornwall (12%) and England (10.3%) averages. Wadebridge & Padstow ranks 12 out of the 19 CNA areas for the number of unpaid carers.

There are 4871 people aged 65 and over in Wadebridge & Padstow with 39% living alone compared to 39% across Cornwall and ranks 9 out of the 19 CNA areas for the percentage of pensioners living alone. Living alone is an identified risk factor for loneliness and social isolation.

Pensioners (65+) Living Alone³

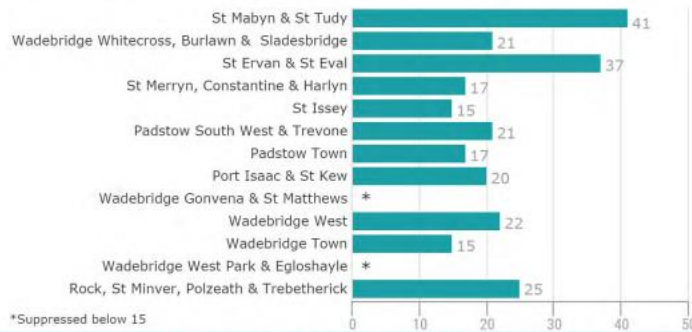




Wadebridge & Padstow - Risk Groups



Special educational needs (SEN)⁴



SEN describes the needs of a child who has a difficulty or disability which makes learning harder for them than for other children their age. Around one in five children has SEN at some point during their school years.



- 3% of Cornwall SEN pupils in Wadebridge
- 7th Highest Teenage Conceptions in Cornwall
- 2% of Cornwall EAL pupils in Wadebridge
- One of the lowest EAL in Cornwall

According to the school census, there were 9,510 pupils in Cornwall recorded as having a Special Educational Needs (SEN). A total of 279 pupils in Wadebridge & Padstow were recorded as SEN, varying by area, from 14 pupils for example to 41 pupils in St Mabyn and St Tudy.

Under 18 Conceptions⁵ % of deliveries (2010/11-2014/15)



The level of under 18 conceptions has fallen right across Cornwall over the last decade down to 17.6 per 1,000 conceptions. This is now a lower rate of than the rest of England (21.0 per 1,000). There is, however, variation across Cornwall and Wadebridge & Padstow ranks 7 out of the 19 CNA areas for under 18 conceptions.

These figures show the number of primary and secondary pupils' resident across Cornwall whose first language is not English. Of 1,990 pupils recorded as EAL in the school census (2016) 33 resided in the Wadebridge & Padstow area. These figures vary considerably by area.

English as an additional language (EAL)⁶

