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Childcare Capacity in Wales

Mapping childcare supply against potential demand

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Childcare Capacity in Wales: Mapping childcare supply against potential demand

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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

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Definitions

Capacity – the supply of childcare

Availability – the ratio of the supply of childcare to meet demand.

1. Introduction

1.1 In April 2017, 4,025 childcare providers were registered with Care and Social Services Inspectorate Wales (CSSIW)[1]. The majority of childcare providers are child minders (52 percent). The remaining childcare provision is delivered by sessional day care settings (20 percent), full day care settings (17 percent), out of school care settings (10 percent), open access play provision (1 percent) and crèches (0.5 percent)[2].

1.2 The total number of childcare places in Wales increased from 76,000 in 2012 to 84,000 in 2017. The greatest demand tends to be for full day care and after-school care services.

1.3 The Welsh Government places great value on childcare and recognises the crucial role it plays in the lives of families in Wales. Affordable, available and accessible childcare provides key opportunities for child development and enables parents to work or access training, supporting our drive to increase economic growth, tackle poverty and reduce inequalities.

1.4 Recognising that childcare enables parents to work, supports economic growth, and helps tackle poverty and inequality; the Welsh Government has made flexible, affordable and high-quality childcare a priority for the next five years. In particular, the Welsh Government has made a commitment to expand its free education and childcare offer for working parents of three to four year olds.

1.5 The Childcare Offer for Wales is likely to be the primary driver of change for the childcare sector in the coming years. Currently, all three to four year olds are entitled to a minimum of 10 hours per week of early year's education during term time. The Childcare Offer will combine these hours with an additional 20 hours of childcare in term time for households where parents are working a minimum of 16 hours per week at national minimum wage. For the nine weeks of school holidays, three to four year olds will receive 30 hours of childcare. A phased roll-out of the Childcare Offer for Wales will commence in September 2017 and is expected to cover the whole of Wales by 2020.

[1] See https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Services-for-Social-Care-and-Childrens-Day-Care

[2] CSSIW's directory of registered children's day care settings – December 2016.

1.6 The purpose of this report is to determine the ability of the existing childcare market to provide for the potential future demands for childcare when the new Childcare Offer is introduced. A recent report by NatCen for Save the Children identifies this gap in research evidence when it comes to comparing take-up of childcare and patterns of childcare use across the four nations of the UK. More generally, the availability of good quality childcare data for Scotland, Wales and Northern Ireland, which would be representative of different age groups of children, is more limited than it is for England[3].

1.7 There are a variety of different types of childcare available to parents. Each can provide different benefits and costs. For the purposes of this project, only services that are registered with CSSIW, the care and social services inspectorate for Wales, are considered. This means types of childcare, such as nannies and au pairs, are not included. Similarly, many parents make use of informal childcare, such as that provided by grandparents and friends; this type of childcare is also not included. Each type of formal childcare provision considered in this report is outlined and defined in the following section.

Child minding

1.8 This is childcare provided by one or more people for children from birth up to the age of 12 years in a house that is not the child's own home for more than 2 hours a day. Child minders can offer full day care or part time care including before and afterschool provision. They are free to set their own prices.

Day Care

1.9 Day care is provided on non domestic premises and generally must be registered with CSSIW if the provider is caring for children up to the age of 12 years for more than two hours a day. It covers a range of different types of provisions.

1. Full Day Care

1.10 Full day care is for children up to the age of 12 years, for four or more hours a day. It may include full or part time care, before and after school care, holiday care and wrap around care. This type of childcare includes settings offering a variety of sessional care services, such as Welsh and English medium day nurseries.

[3] http://natcen.ac.uk/media/1361385/childcare-use-and-attitudes.pdf

2. Sessional Care

1.11 Sessional Care is for children from aged two onwards, which is for less than four hours in any one day. The service is mainly used by children aged from three to five and can offer play group provision, Cylch Meithrin, funded education places and free childcare places.

3. Out Of School Childcare

1.12 Out of School Childcare refers to childcare provided before school, after school and during the school holidays. It does not include wrap around care and the Welsh Government free breakfast in primary schools scheme. Therefore this is typically only for children aged five or older.

4. Crèches

1.13 Crèches offer occasional day care for children up to the age of 12 years. They need to be registered with the CSSIW if they run for more than two hours a day and more than five days a year. Some are in permanent premises and care for children while parents are engaged in particular activities (e.g. training, shopping or sport). Others are established on a temporary basis to care for children while their parents are involved in time-limited activities (e.g. a conference or an exhibition).

5. Open access play provision

1.14 Open access play provision can be a permanent or temporary provision, usually catering for a wide age range of children, normally aged five years old and over. The purpose is to provide play opportunities for children usually in the absence of their parents. Children are not restricted in their movements, other than where related to safety matters and they are not prevented from coming and going as and when they wish.

1.15 For the purposes of this research, child minders, full day care and part day care were considered separate groups. Part day care comprises of sessional care, out of school care, crèches and open access play provision.

Aims and Objectives

1.16 This project was commissioned with the purpose of determining the ability of the existing childcare market to provide for the potential future demands for childcare when the new Childcare Offer is introduced. This involves three main stages:

a) Identifying the supply of childcare and where it is located
b) Identifying which areas in Wales are likely to have higher demand for childcare
c) Comparing the supply and potential demand within local travel catchments

1.17 For this work to be as effective as possible, the comparisons were done at a very small area level. While it is currently impossible to identify the households in which children are living, we can identify the number of children living in Census Output Areas, which are typically between 100 and 150 households, e.g. a small village or collection of suburban streets.

1.18 Therefore the research questions to be answered were:

- What is the overall capacity of the childcare supply relative to the potential demand across Wales?
- What are the areas of Wales where there is little available childcare relative to the local potential demand?
- What is the difference between the current availability and the potential desired level of childcare availability to effectively implement the new Childcare Offer?
- What amount of childcare is made up by the different types of childcare?

Demand for Childcare

1.19 While there are many factors which influence a parent's decision to make use of childcare, the children who are most likely to be in childcare on a regular basis are under the age of five, in working households in less deprived areas[4]. Therefore it could be expected that areas with high density of pre-school aged children, those with a high proportion of working households and areas that are not deprived, will have a higher demand for childcare.

1.20 Figure 1a shows the population density of children up to the age of four. It highlights that the highest density of young children can be found in urban centres, particularly in the South East region, around Swansea, Cardiff and Newport. There are also high density groupings in the North, around Wrexham and Prestatyn, and the South Wales Valleys.

[4] See https://www.gov.uk/government/statistics/childcare-and-early-years-survey-of-parents-2014-to-2015

1.21 Figure 1b shows the relative deprivation across Wales, according to the Welsh Index of Multiple Deprivation. This clearly demonstrates that the South Wales Valleys are multiply deprived, and are more deprived than the rest of Wales. There are also a few small, highly deprived areas in places such as Swansea, Cardiff and Newport.

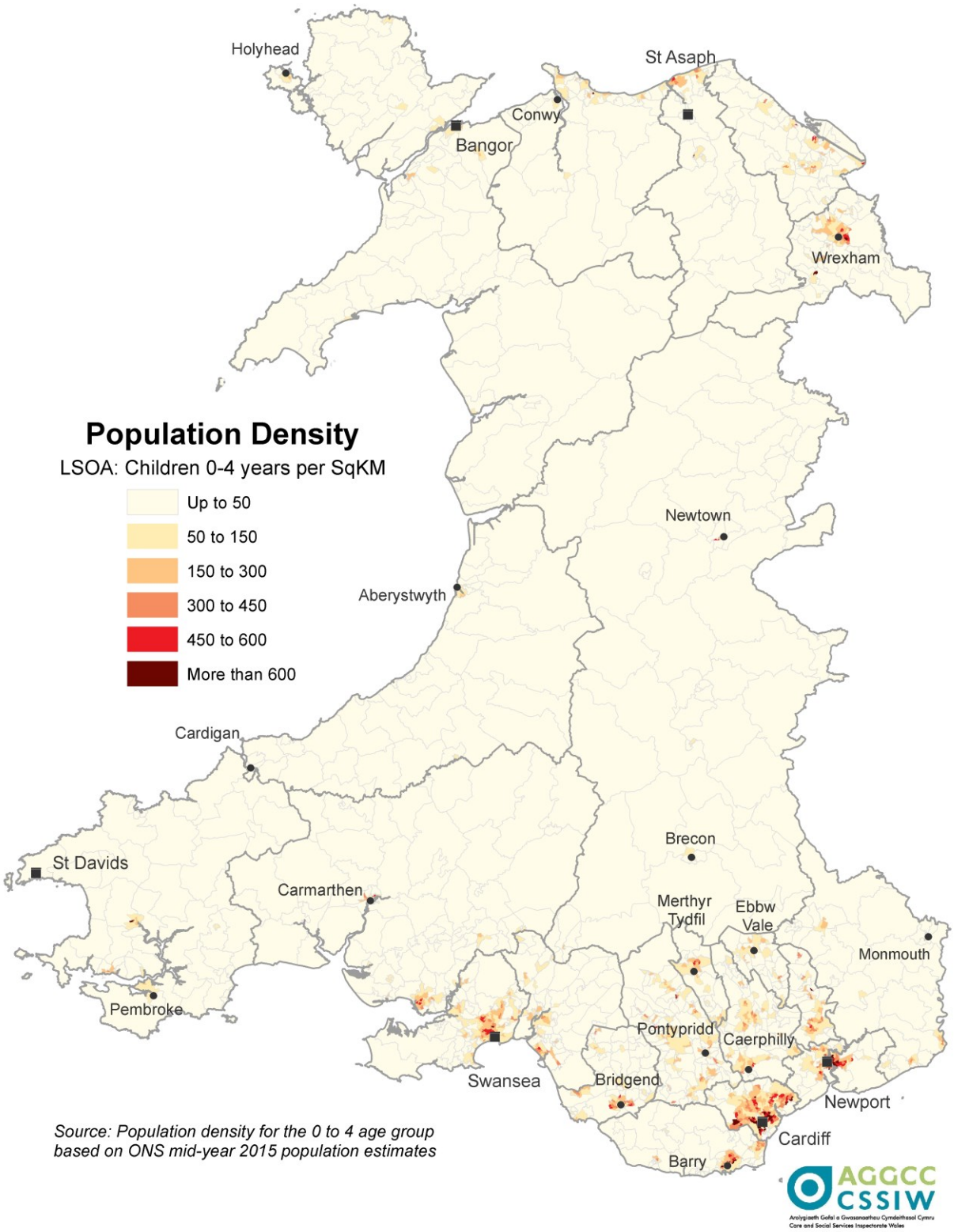
1.22 There appears to be relatively low levels of deprivation across North, Mid and West Wales, with only a few small pockets of deprivation. This suggests that compared to the rest of Wales, the South East is more deprived, and potentially less likely to have a higher demand for childcare.

1.23 Figure 1c indicates the proportion of working parent households in Wales, out of the total number of households with dependent children. The average rate of households where both parents, or a sole parent, are employed is 66.7 percent.

1.24 The darker regions are those with a higher proportion of working parents, and similar to the deprivation levels, the South Wales Valleys demonstrate low levels of employment, along with the major South East urban areas. Again, the North and Mid regions show relatively high levels of employment. While West Wales does not have as high levels of employment as areas in the North, it still appears to outperform the South East.

1.25 Combined, these maps suggest that in the South East there is a high density of children, but that parents may not need or be able to afford to make use of childcare. However, in the North there are potentially parents who can make use of childcare, but smaller numbers of them than in the denser areas to the South.

Figure 1a. Map of Wales displaying the population density of children up to the age of four



Source: Population density for the 0 to 4 age group based on ONS mid-year 2015 population estimates

Figure 1b. Map of Wales displaying the levels of relative deprivation according to the Welsh Index of Multiple Deprivation (WIMD)

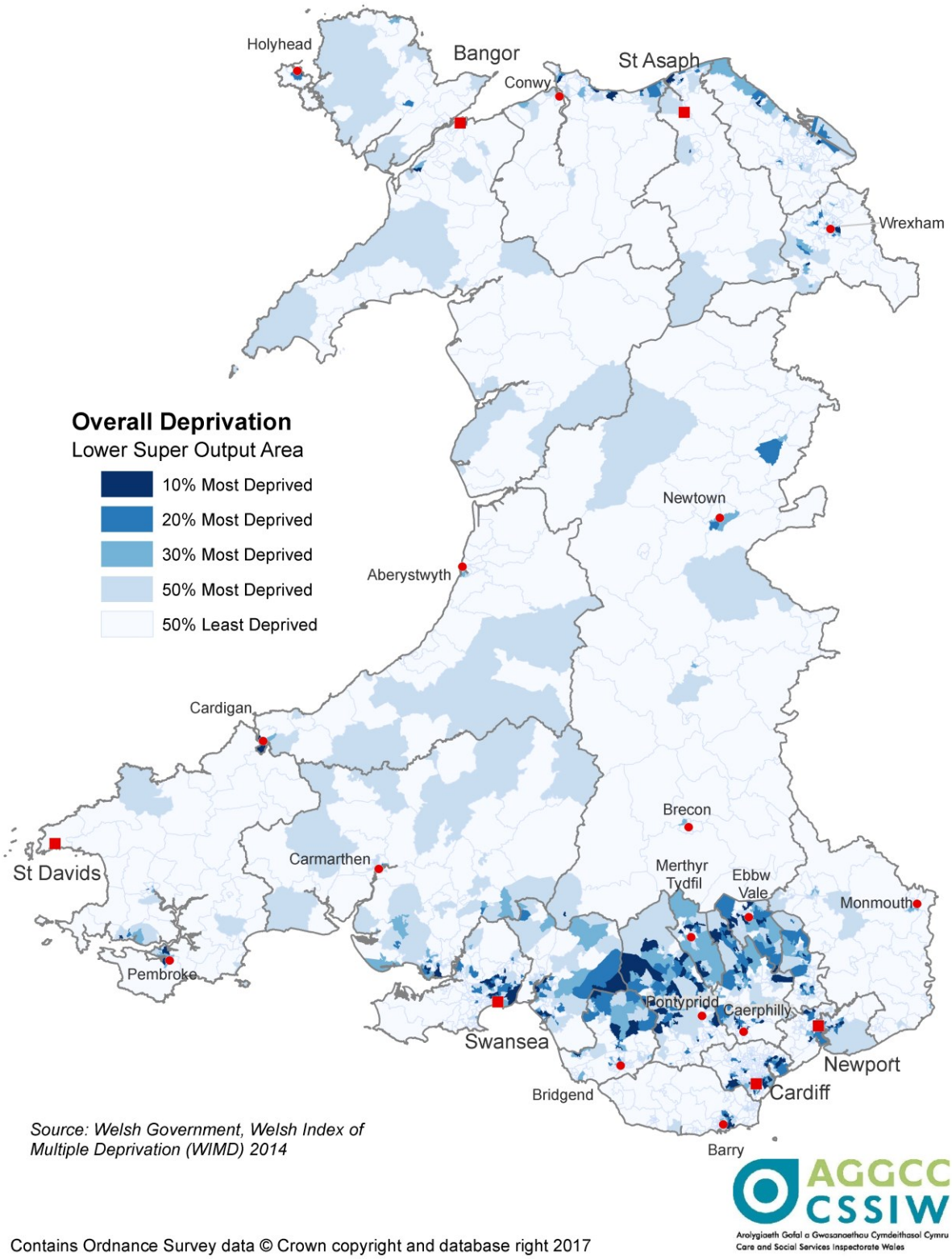


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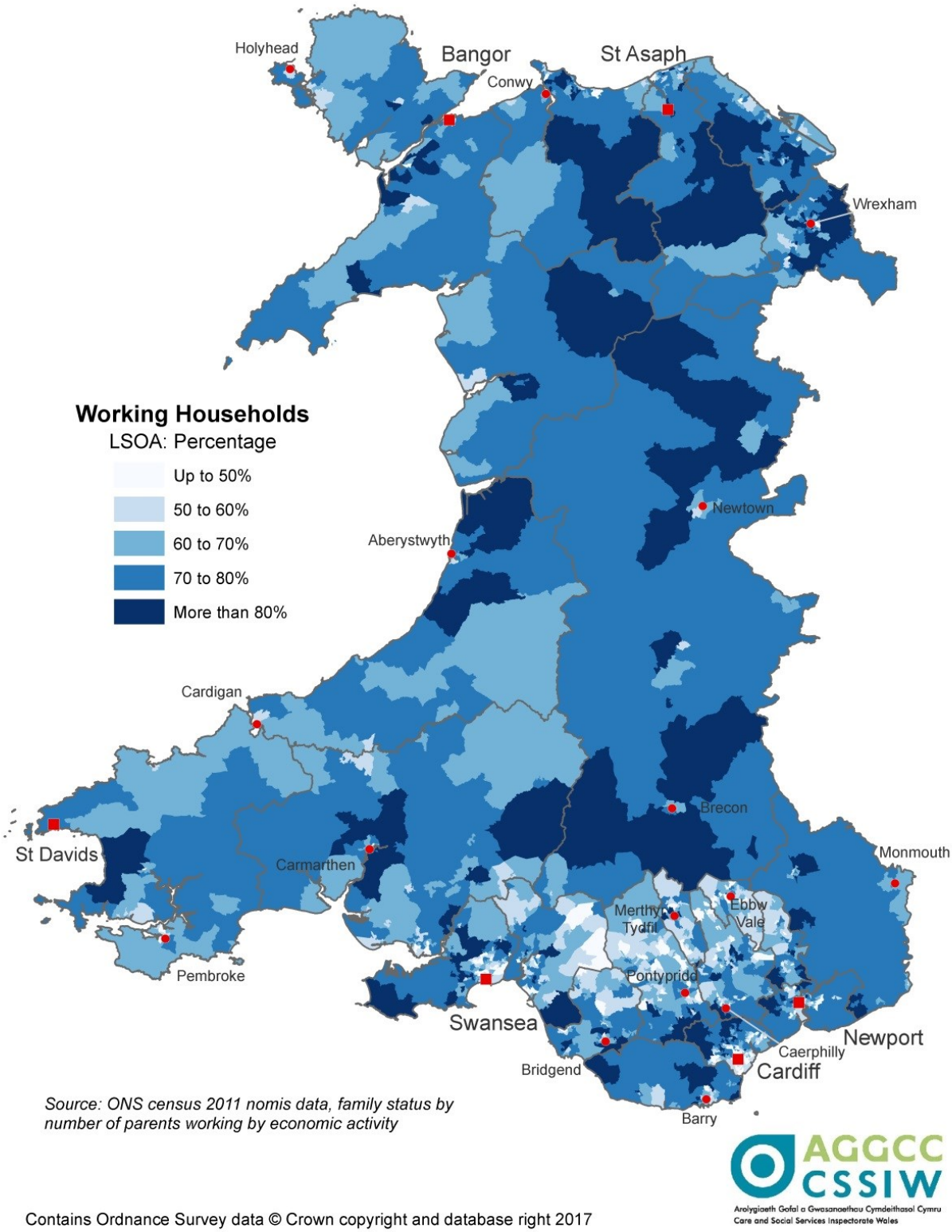
Figure 1c. Map of Wales displaying the proportion of households with dependant children where both parents are working, or lone parent is working



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1.26 The use of the 10 free hours of early year's education is estimated to be around 87 percent of parents[5] and approximately 66 percent of parents in England with children up to the age of 14 use some kind of formal childcare[6]. This figure varies by age, so that roughly 40 percent of children up to the age of two and 90 percent of those aged three or four use some form of formal childcare.

1.27 For children up to two years old, roughly 80 percent of those in formal childcare use some form of day care setting, nursery or play group; less than 20 percent attend a child minder. The increased use by three and four year olds is largely due to the availability of early year's education, so that the use of non educational settings, such as child minders and day care centres declines.

1.28 Of those pre-school children that attend a formal childcare setting, the average number of hours used per child per week is typically between 16 and 19. The use of day care centres is estimated to be higher than that of child minders and play groups, with roughly 18 hours per week in a day care centre, and only 11 and 12 hours per week in child minders and play groups respectively.

Supply of childcare

1.29 The measure for the supply of childcare for this project is based off the CSSIW registered childcare settings. The exact location of each of these services is known, except for child minders, where their address was limited to just to postcode they are living in. The capacity of each of these settings is also known, and so this can provide a reliable measure of the number of childcare places across Wales and in each small area.

1.30 For this project, it has been assumed that all child minders and full day care settings are able and willing to provide up to eight hours of childcare per child per day and that part time day care settings provide up to four hours. This allows for the number of places available to be translated into the number of daily hours per child available.

[5] See http://ppiw.org.uk/files/2016/02/Childcare-Policy-Options-for-Wales.pdf
[6] See https://www.gov.uk/government/statistics/childcare-and-early-years-survey-of-parents-2014-to-2015

1.31 The distribution of child minders shows that they are largely clustered in the South East and the North. There are roughly 2,000 child minder services across Wales and roughly half of all childcare services are child minders, see Figure 1d. However, due to their small capacity they only provide around 20 percent of the total number of childcare places. Therefore, while they are a vital part of the childcare market, day care services account for the majority of the capacity in the childcare market.

1.32 There are roughly 700 full day care settings, providing around 30,000 places, see Figure 1e. This map shows that in a similar way to child minders, full day care settings are mostly found in the South East and North regions. However, the clustering of services in these regions appears to be even more focused, with very few full day care settings located outside of urban centres. While there are typically some child minders located in rural areas, there is almost no full day care setting availability in Mid and West Wales.

1.33 Part-time day care settings appear to be slightly more evenly distributed across Wales than full day care, but still focusing in the South East and North regions, see Figure 1f. The majority of day care settings are part-time, with around 1,200 of the 1,900 day care settings not offering a full day provision. However, part-time day care settings are typically smaller than full day care, so the total number of places offered by part-time day care services is approximately 35,000.

Figure 1d. Map of Wales displaying the density of child minder services across Wales

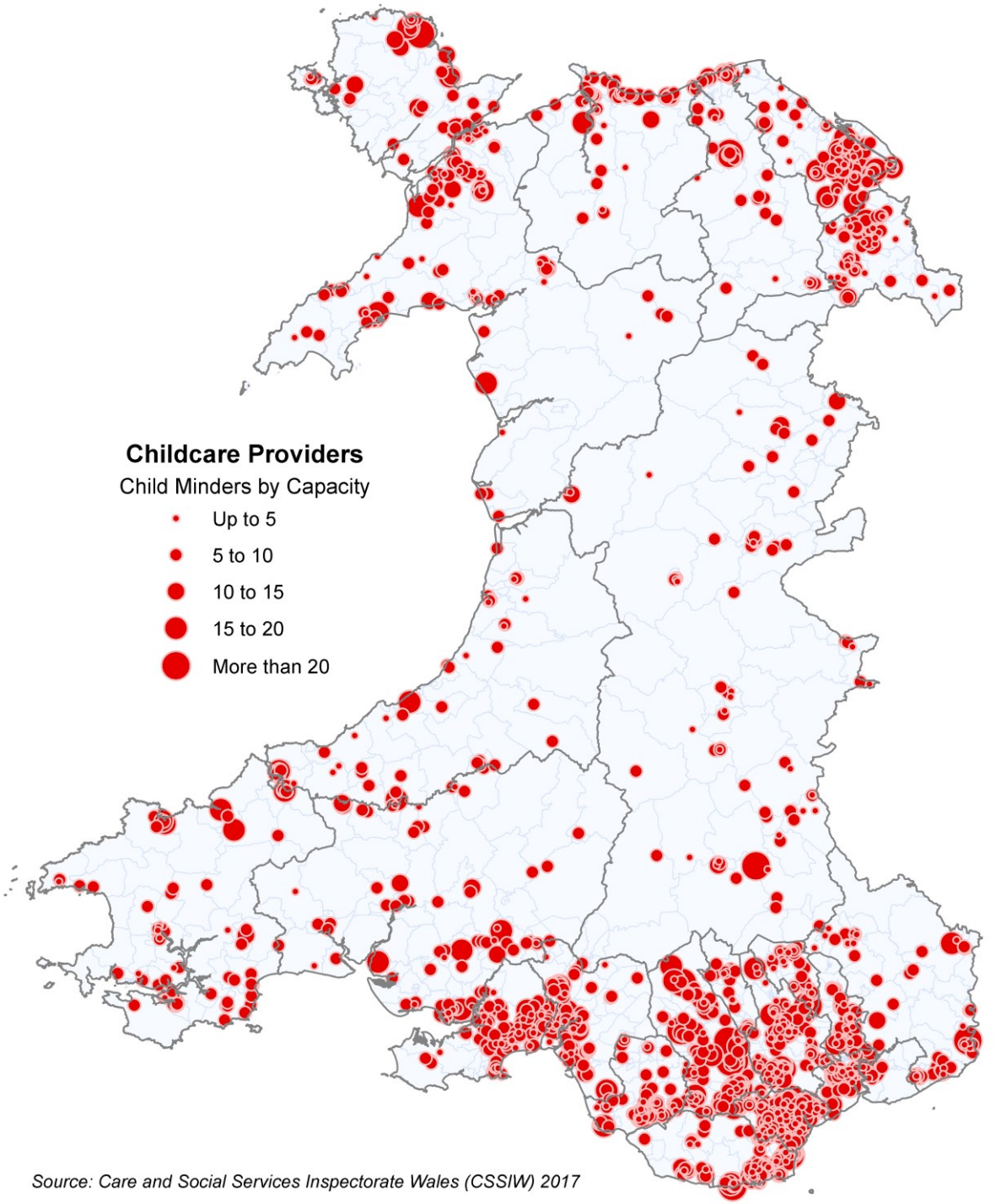


Figure 1e. Map of Wales displaying the density of full day care services across Wales

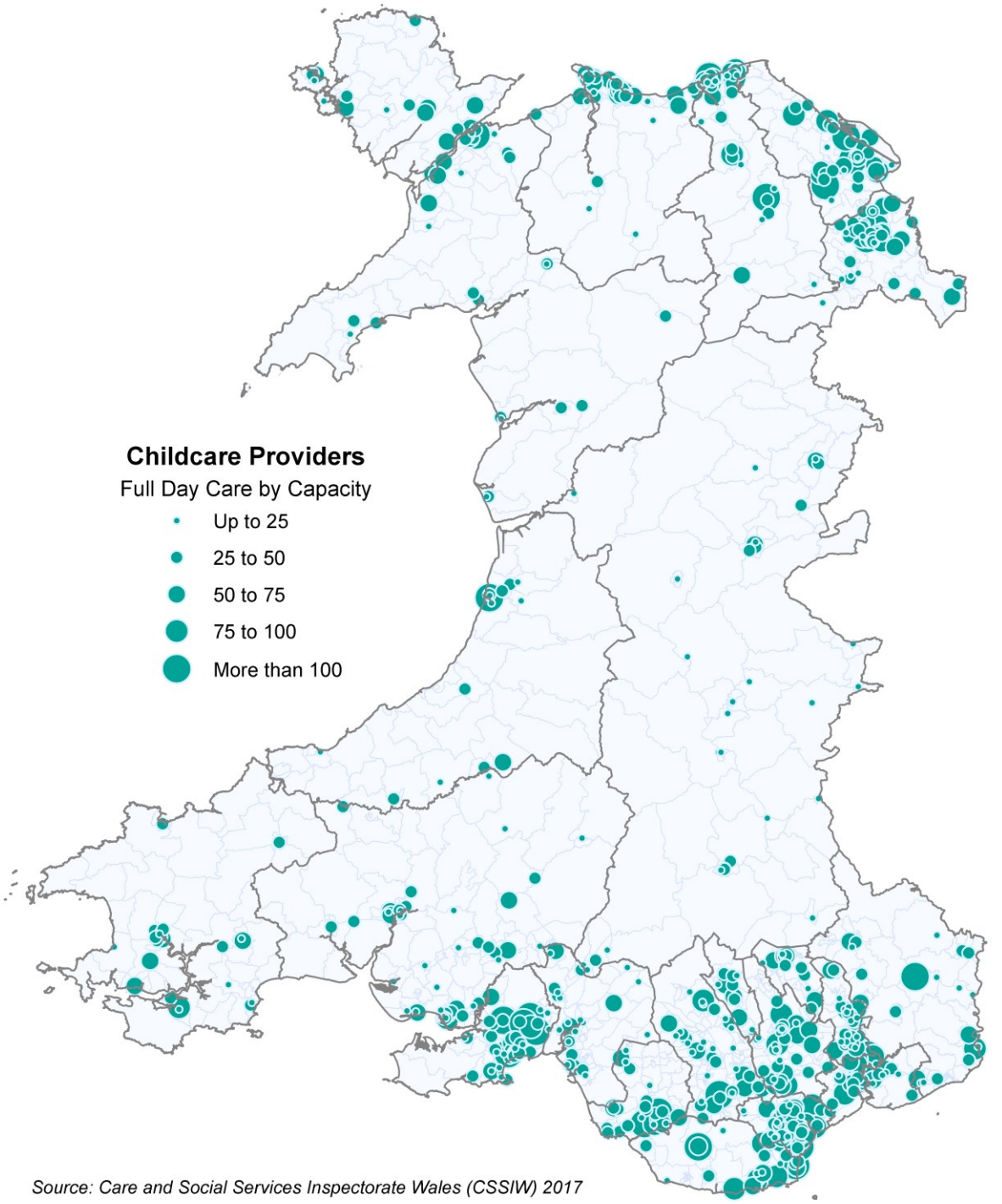
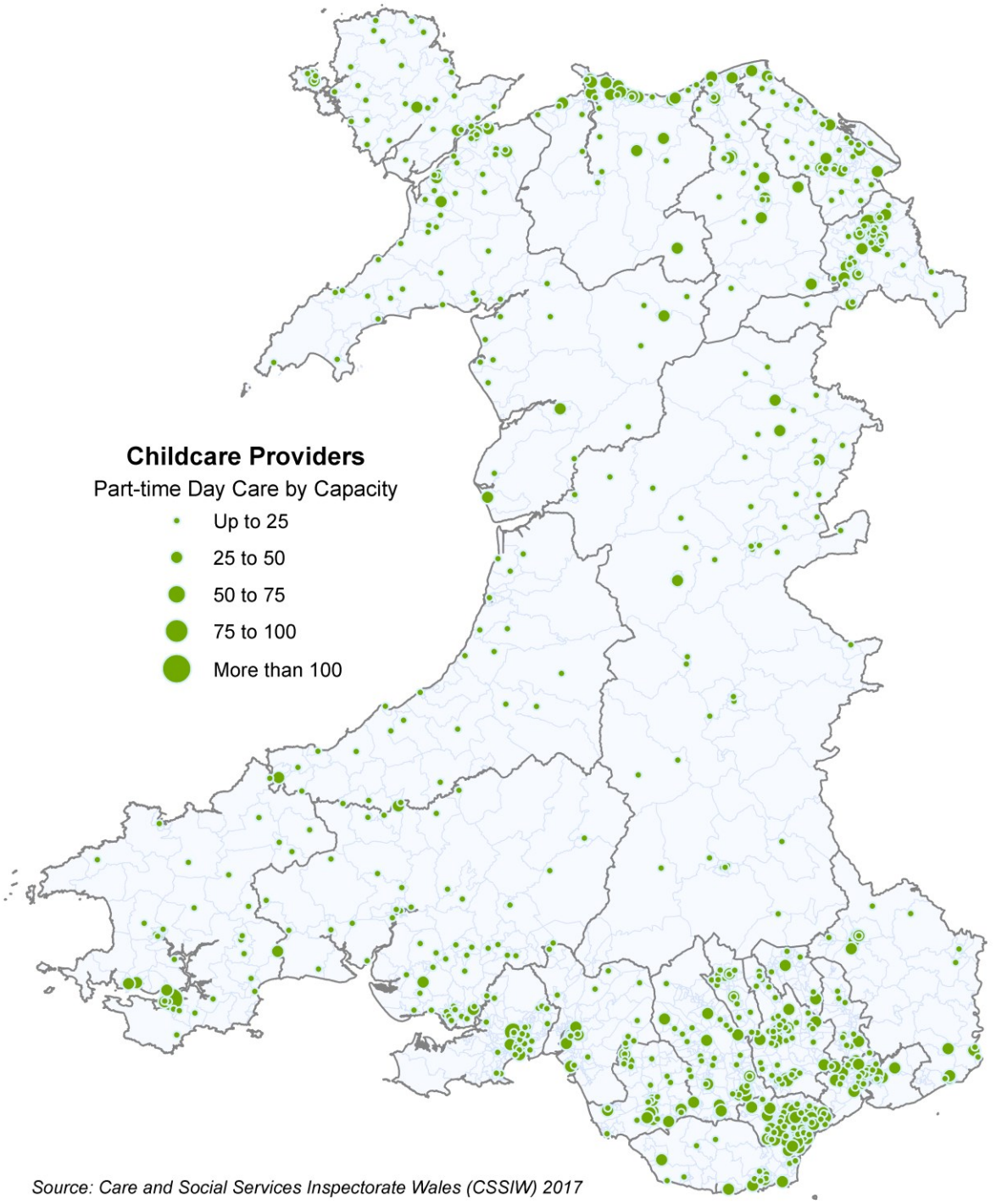


Figure 1f. Map of Wales displaying the density of part-time day care services across Wales



Source: Care and Social Services Inspectorate Wales (CSSIW) 2017

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Childcare Availability

1.34 The availability of childcare is going to depend on both the demand and supply of childcare. The mapping of both shows that young children are more densely populated in the South East, but that also there is higher levels of unemployment and deprivation in these areas. Childcare services also typically are found in the South East and North areas in Wales.

1.35 It could be estimated from this, that due to the ability for parents to be able to afford childcare in the North, but that they are less densely populated, there will be a higher availability of childcare. Conversely, due to the highly dense areas to the South, but low ability to afford childcare, there is potentially a low availability in this area.

Limitations

1.36 It is important to note, that childcare supply can be easily measured, but demand can only be estimated from the factors discussed above. Therefore, while this project attempts to produce a measure of supply against demand for Wales, it is only potential and estimated demand that has been used, and so is unlikely to be fully accurate.

1.37 Another factor to consider is that only children up to the age of four are considered in this report. Therefore any estimates of availability are likely to be an overestimate, as the demand placed on childcare places by those children aged five or older have not been considered.

1.38 The age of the children is particularly relevant for part-time day care settings. Only 11 percent of children attending an out-of-school care and six percent of those attending open access play settings are younger than five years. However, nearly all children in sessional day care and crèches are younger than five years.

1.39 Unlike part-time day care services, full day care services almost exclusively provide to children under the age of five, with only 13 percent of those attending being five or older. Child minders on the other hand have a wider spread of provision, with around 40 percent being five or older.

1.40 The impact of the age is that the potential demand estimates based off the birth to age four population is more likely to be accurate for full day care, and less accurate for part-time day care. Also, any changes in demand introduced by the new Childcare Offer are likely to have a greater impact on full day care services than part-time.

2. Methodology

2.1 This section provides an overview of the methodology used to calculate a childcare capacity score, for measuring the accessibility of childcare services in consideration of the childcare offer.

2.2 The analysis for this project was undertaken by researchers in the Wales Institute of Social & Economic Research, Data & Methods (WISERD). They made use of their bespoke analytical tools to provide the outputs seen in this report.

2.3 Data on the total childcare capacity across Wales is routinely collated by the CSSIW[7]. A demand and supply model of childcare availability can be constructed by considering the supply of childcare capacity to a potential demand generated by the age zero to four group[8].

2.4 Additional factors such as distance (or a proximity measure such as time) are also an important aspect when measuring overall service accessibility. This is based on the assumption that people prefer to use a service that is located nearby rather then traveling further distances.

2.5 A geographic information system (GIS) is used to map and analyse the supply locations of all childcare providers and the population demand centres across Wales on a detailed geographic scale[9]. A population demand centre is defined as the central point of a Census Output Area (OA)[10]. These areas typically contain between 110 and 150 households, and across Wales the average zero to four year old population in each OA is approximately 18 children.

[7] Total childcare capacity is based on the maximum place numbers recorded for registered CSSIW childcare providers.
[8] The ONS 2015 mid-year population estimates were used to calculate the population demand centres for the zero to four age group.
[9] The postcode for each CSSIW provider is used to map supply availability.
[10] See https://www.ons.gov.uk/census/2001censusandearlier/dataandproducts/outputgeography/outputareas

2.6 GIS provides the capability to use advanced spatial modelling techniques to give a detailed analysis of the variability in childcare provision across Wales. The algorithm used in this study is known as the 'two-step floating catchment area' (2SFCA). This technique uses a 2-step calculation to measure the supply-to-demand ratio for childcare and is based on the following assumptions:

i) A childcare provider located closer to home is more likely to be used.

ii) There is a distance (or time) limit on how far people are willing to travel to reach a childcare provider[11].

2.7 A floating catchment area is constructed around each unique population centre to calculate the maximum distance people are willing to travel. A 20-minute[12] drive time is assumed as a realistic measure for people travelling by car to reach a childcare provider[13]. If this drive time were to be increased, local variability in the estimates of childcare accessibility would gradually diminish.

2.8 As an example, Figure 2a shows the location of childcare providers (diamonds) and population centres (squares). The catchment area shown by the circle represents the maximum distance individuals residing at the population centre are willing to travel.

2.9 A supply-to-demand ratio is estimated for each catchment area which is assigned to the nearest population centre as an initial childcare capacity score. This score is calculated by dividing the total place numbers reachable within the floating catchment by the total count of eligible zero to four year olds living within the area[14].

[11] Distance drive times are modelled on the road network and the ability to travel through the network at default speeds predicated on road classifications.

[12] The technical travel-time threshold used was 10 minutes. However, to more accurately represent real world events with factors such as traffic congestion and peak travel time, a 20 minute drive time was deemed more appropriate.

[13] This is a standard assumption made for accessing public services. However, in the case of childcare, it is currently unknown the proportion of parents that make use of childcare at their work location, rather than home. This is an area for further research.

[14] Children are deemed eligible only if they are from households where both parents are working. The proportions of working households at the census OA level have been included in calculations to generate the count for all eligible zero to four year olds.

2.10 To account for the fact that closer providers are more likely be used than those further away, a distance-decay function has been used to ensure that each floating catchment is weighted according to geographic proximity to services. In the real world, catchment areas typically overlap and often services will fall within more than one population centre catchment. As shown in Figure 2b. This means that childcare providers may fall inside more than one population centre catchment, in which case their available places must then be 'shared' amongst these competing population groups.

Figure 2a. A simplified example of the 'floating catchment area' technique

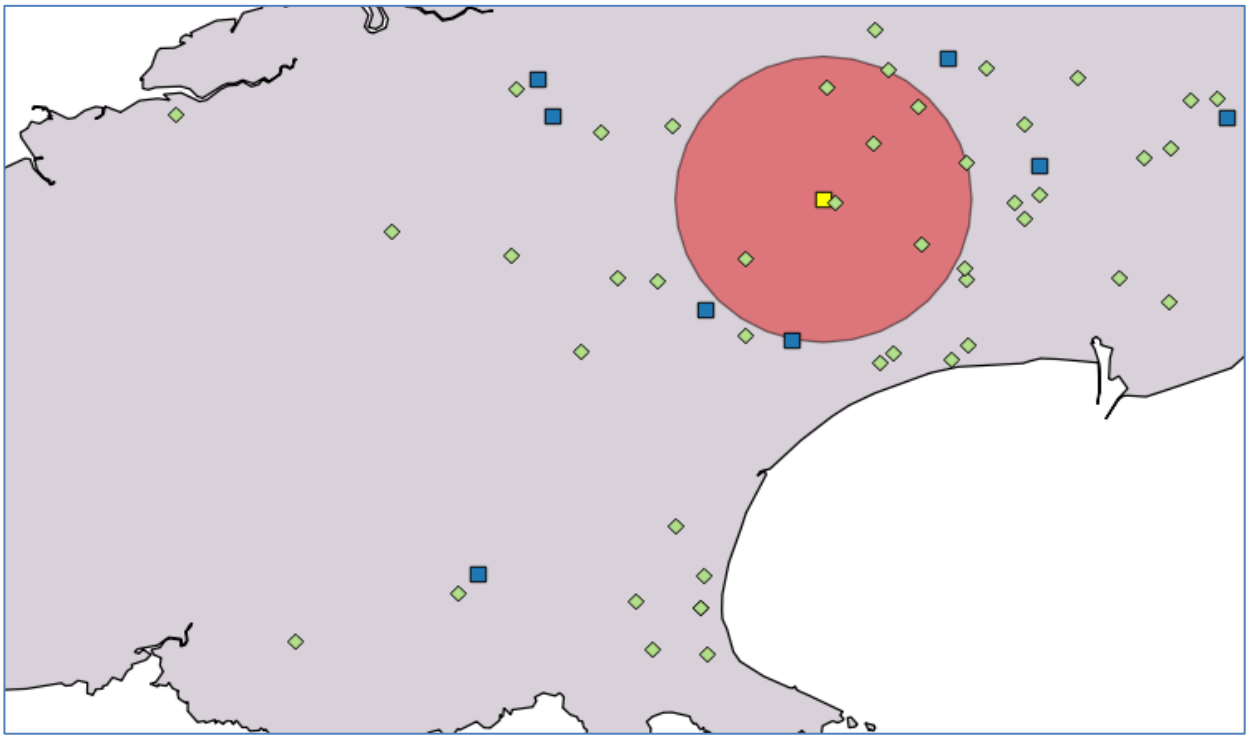
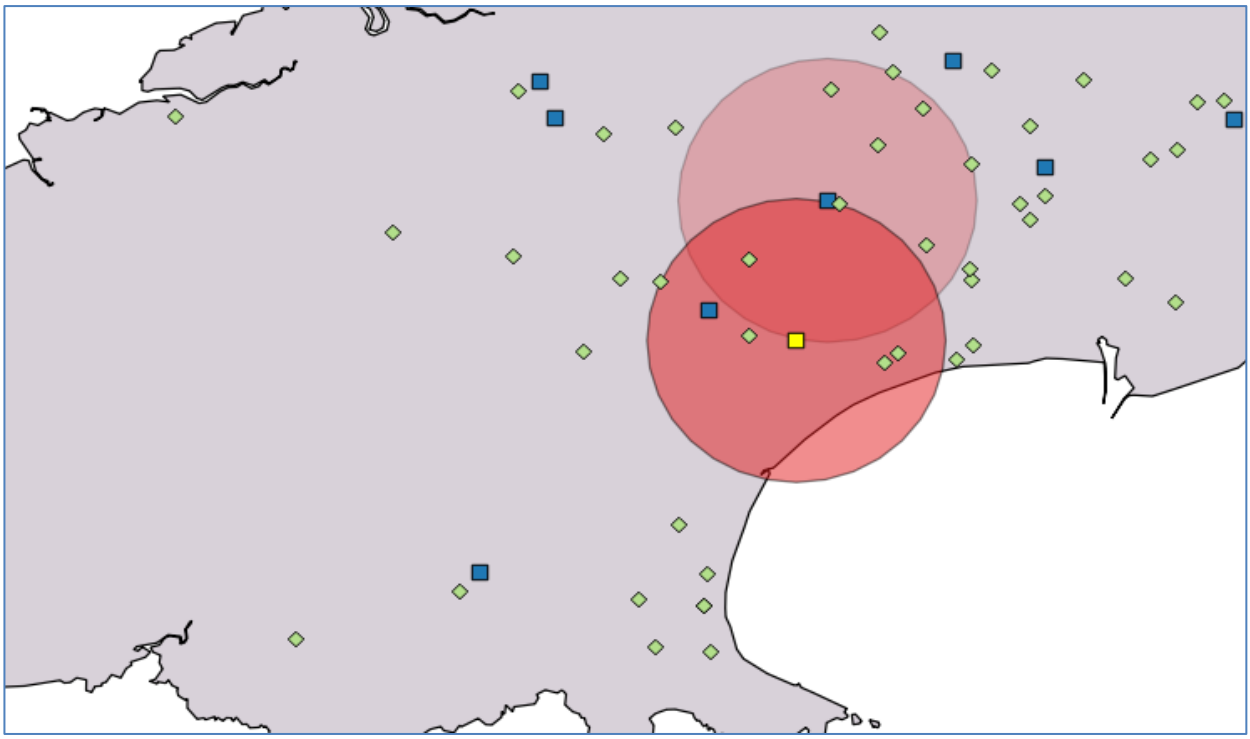
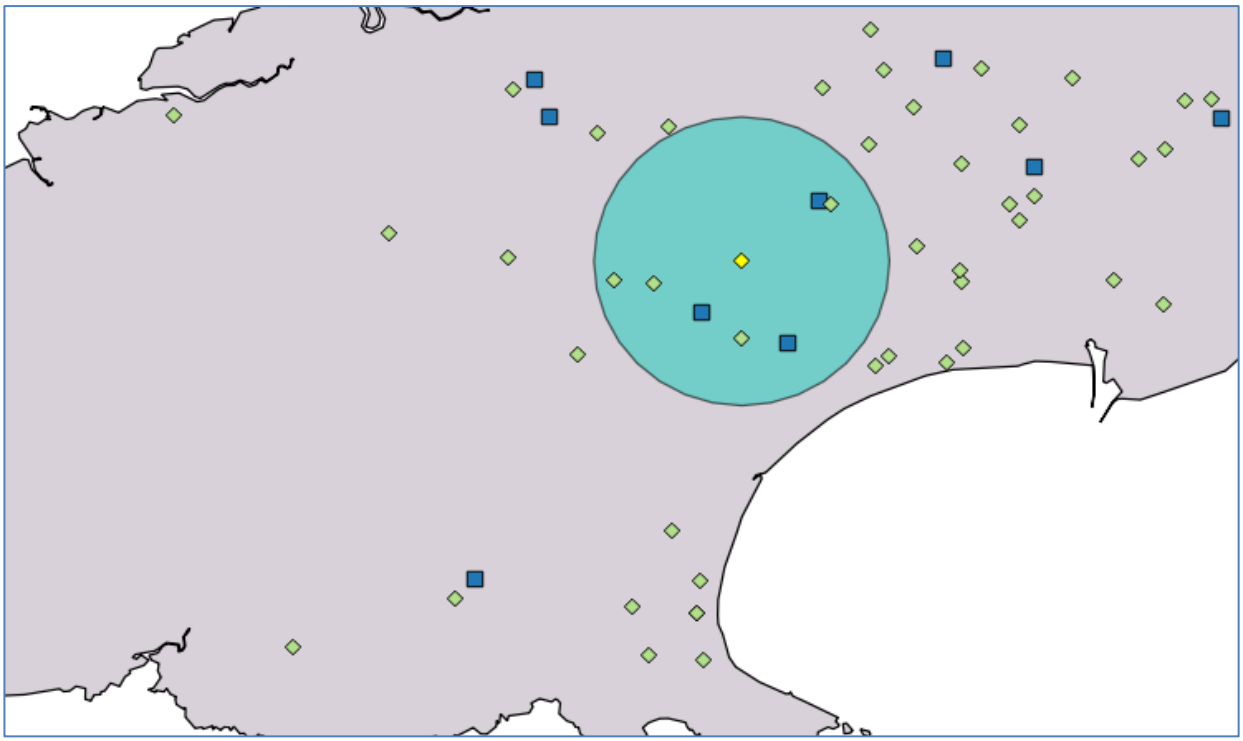


Figure 2b. Example of overlapping floating catchment areas



2.11 The 2SFCA method addresses the issue of overlapping by next using each provider rather than the population centre as the focus of attention, i.e. determining the catchment area around each childcare provider. This is illustrated in Figure 2c. Then similar calculations are performed as before to produce a score for each childcare provider. However, the ratio is reversed (i.e. demand-to-supply) and is calculated by dividing the count of eligible zero to four year olds by the total place numbers. The overall result is an exclusive childcare capacity score modelled according to the best accessibility to childcare providers in terms of travel-time.

Figure 2c. An illustration of the childcare provider catchment area



2.12 The final childcare capacity score now reflects the eligible demand for services (i.e. the number of zero to four year olds from working households), the proximity of services (i.e. how near they are), the accumulative opportunity (i.e. the number of supply services within the area) and the supply capacity (i.e. the number of places available).

2.13 In order to model the availability of childcare capacity specific to categories of full day care, child minding and part-time care, the final childcare capacity scores are expressed in terms of 'hours of availability'. So, for example, each placement provided in a full-time day care service, or child minder, was assumed to equate to eight hours of service availability. Likewise, a part-time placement in a day care facility was assumed to equate to four hours of service availability (this includes providers of sessional day care, crèche, open access play provision and out of school care).

2.14 The final childcare capacity score assigned to each population demand centre is now interpreted as 'the number of hours of available childcare provision per eligible child eligible to receive free childcare'.

3. The picture for Wales

3.1 The current estimates are that there are roughly 175,000 children up to the age of four living in Wales[15]. Combined, there are just less than 80,000 childcare places, of which 45,000 are potentially full day places. Therefore there are not enough places for all children to attend childcare full time.

3.2 The key issues for this project are the areas of lower availability, and how many hours can be provided to children that are eligible for the new Childcare Offer. As already said, around two thirds of households with dependant children aged three or four are eligible to receive the Childcare Offer.

3.3 Roughly 40 percent of children up to the age of four are either three or four years old, i.e. 70,000 children. If all of those who are eligible took up the offer, it would mean that just over 46,000 full time places would be required. This means, at current estimates, if all full time places were devoted to providing the Childcare Offer, there still would not be enough places.

3.4 The analysis from the 2SFCA provides an estimate of the number of hours available to children in each area, if all wanted to attend a formal childcare setting. For example, an estimate of eight hours would mean that every child in that area could attend some form of formal childcare for eight hours each week. This would mean each could attend one full day each.

3.5 The results of the analysis suggest that even the areas with the highest capacity per child are able to provide little more than six hours per child; there are some areas with no childcare availability. The average level of availability across the whole of Wales is two hours and 40 minutes per child.

3.6 The number of hours available is made up of a combination of full day care, part-time day care and child minders. The relative proportion of which will vary by area. On average, full day care settings account for half of the available hours, and a quarter comes from each of child minders and part time day care.

3.7 In general, there appears to be higher childcare capacity levels in urban and affluent areas. The areas around main towns and cities have slightly higher averages than more rural areas, with the areas around Wrexham, Bangor and Conwy showing typically higher levels of available hours.

[15] http://gov.wales/docs/statistics/2008/081204sb702008en.pdf

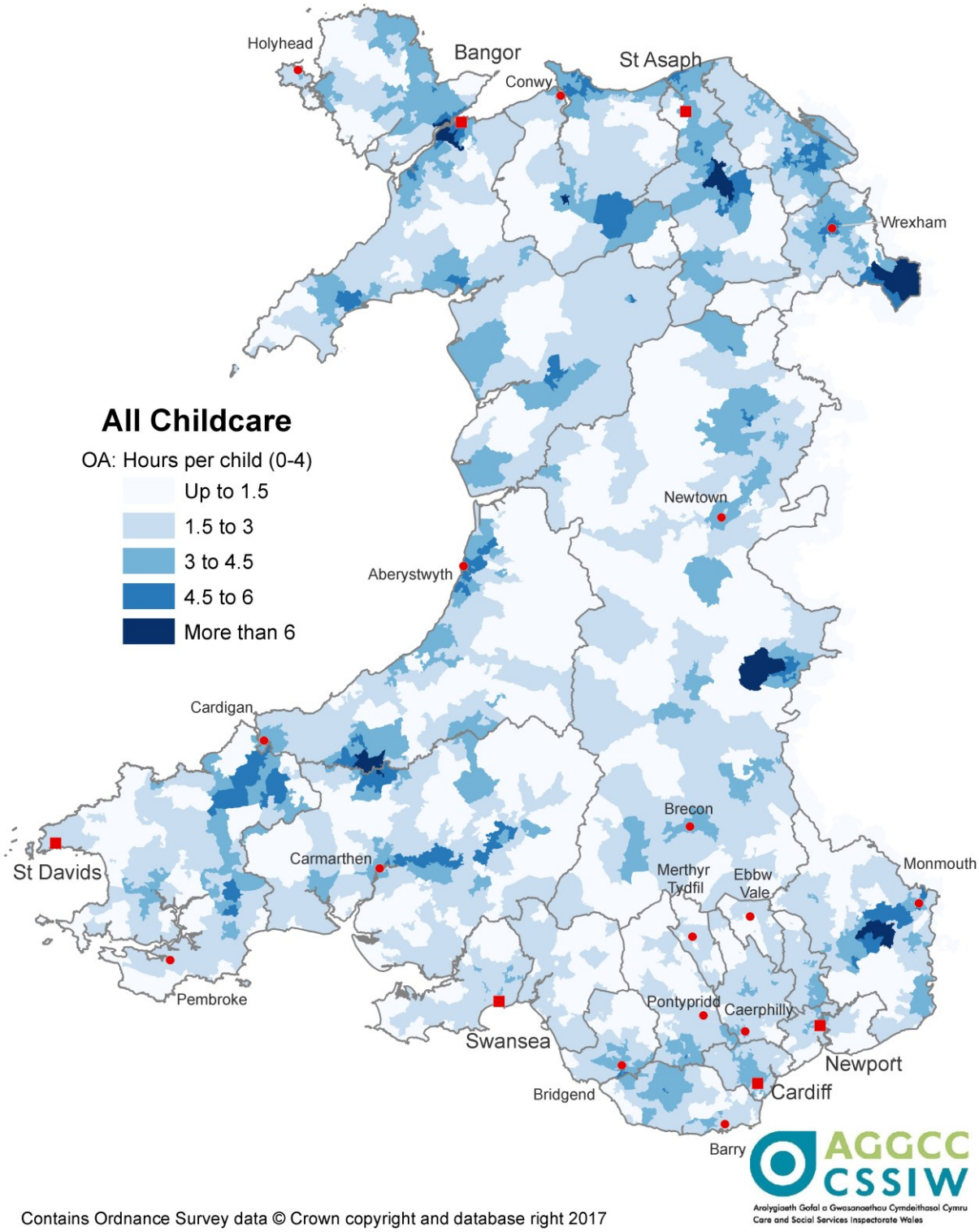
3.8 There are also several pockets of particularly high availability. These areas exist where the number of children in that area is lower than average, and the available childcare places are high. This may be the case where a large day care centre is based outside of a town, or in a central point between other population centres. There also appears to be a trend for these high availability areas to be closer to the border, suggesting they are providing for children living in England, which are not included in the analysis.

3.9 Lower levels of availability are typically found in rural and disadvantaged areas. There is typically less than one and a half hours of childcare available per child in both Mid-Wales and the South Wales Valleys.

3.10 These results are in line with the previous predictions about the availability of childcare. The lower population density, but higher levels of employment and affluence in the North mean the average availability of childcare is high. While there are high levels of childcare supply in the South East, particularly around the main cities, there is also a large density of children to make use of the places.

3.11 The low levels of availability in the South Wales Valleys and Mid-Wales are related to the low levels of childcare supply in these areas, but the higher population density leads to even lower availability in the Valleys.

Figure 3a. Map of Wales displaying the number of childcare hours available for all children up to the age of four, including all childcare types



3.12 A slightly different picture appears when only children who live in working households are included. By only including those households that are eligible for the Childcare Offer, those areas with a lower proportion of working parents will see a larger increase in the availability of childcare than those where employment levels are highest.

3.13 Since only a few small areas in Wales have no unemployment, when this subpopulation is used, the number of available hours per child increases across Wales to an average of four hours and five minutes. The proportion of areas that can provide more than six hours of childcare per child increases from 0.5 percent to just over 11 percent.

3.14 The results shown in Figure 1c suggest that areas in the North West and South West have the lowest proportions of working parents. Therefore, these areas show a considerable increase in the number of hours available per child when this subpopulation is used.

3.15 Of all childcare provider types, child minders appear to show the most marked difference when only eligible households are included. This suggests that child minders become a more prevalent childcare type in lower employment areas.

3.16 The average number of hours provided by just child minders across Wales is approximately one hour per eligible child, with this increasing to two hours in high capacity areas. The increase found in the North West and South West appears to be largely driven by child minders, with particular increases in availability of child minders around Cardigan, Fishguard, Brecon, Builth Wells, Pwllheli and the Isle of Anglesey.

3.17 The average amount of full day care per eligible child is roughly two hours, which increases to three or four in high capacity areas. These high capacity areas appear to be sporadic and mostly located in rural locations, in North Wales or close to the English border. This suggests that these high capacity areas are found where either population density is low, unemployment is high or they are providing for children living in England.

3.18 Part time childcare appears to be more available in South West and North areas. The availability of part time childcare is closely matched to the proportion of those who speak Welsh in that area. This is potentially due to an increased number of Welsh speaking play groups and sessional day care.

Figure 3b. Map of Wales displaying the number of childcare hours available for children up to the age of four living in working households, including all childcare types

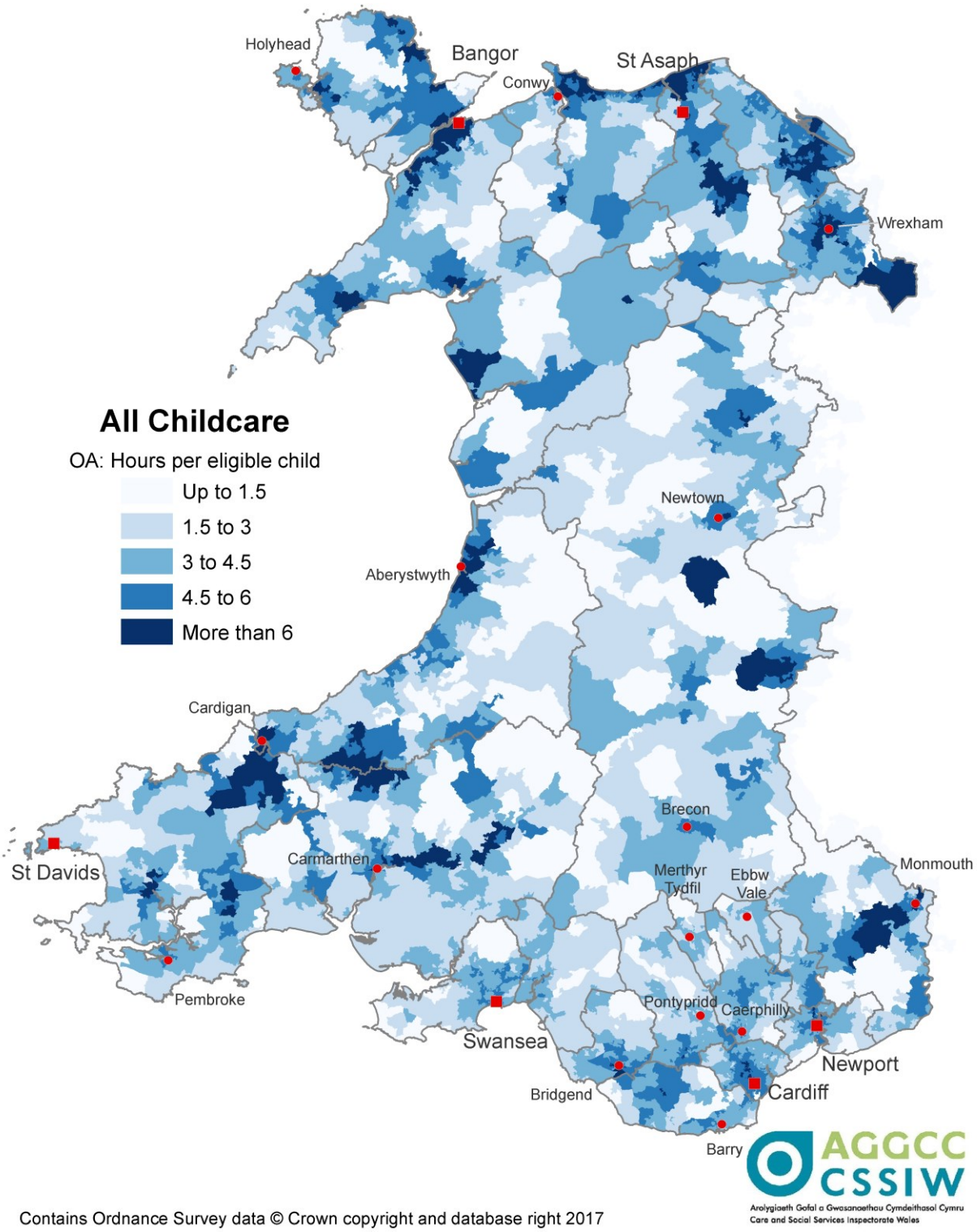


Figure 3c. Map of Wales displaying the number of childcare hours available for children up to the age of four living in working households, for child minders only

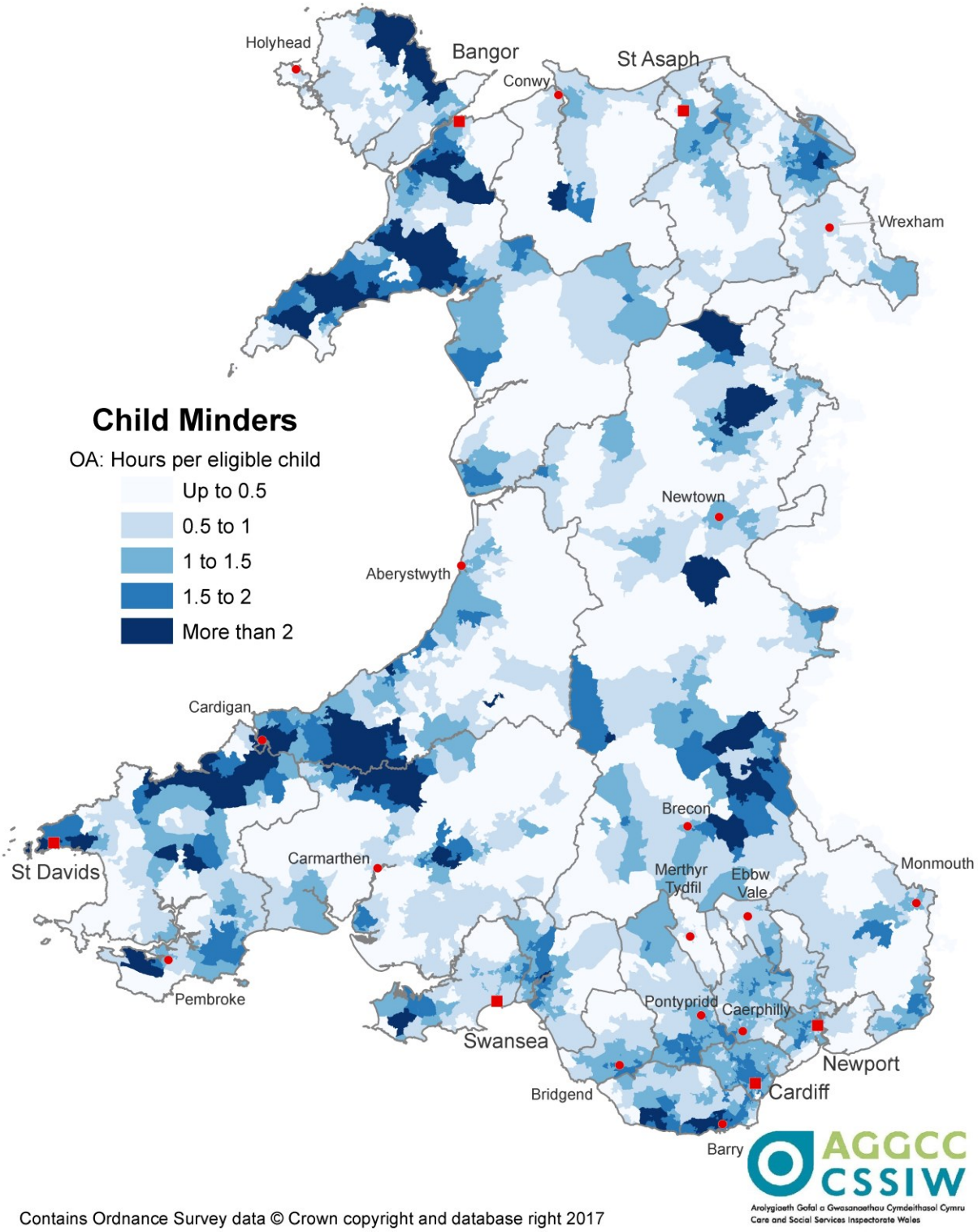


Figure 3d. Map of Wales displaying the number of childcare hours available for children up to the age of four living in working households, for full day care settings only

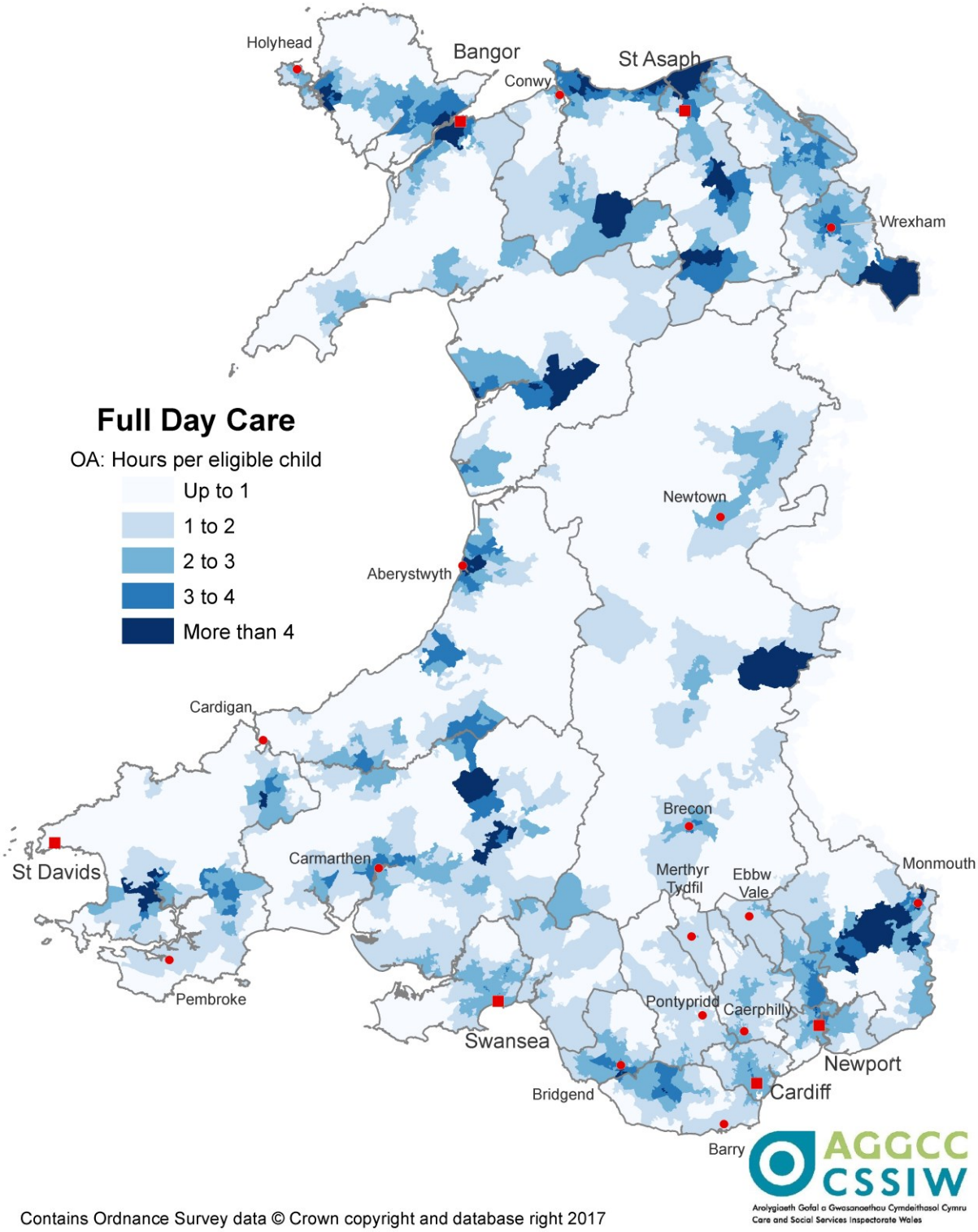
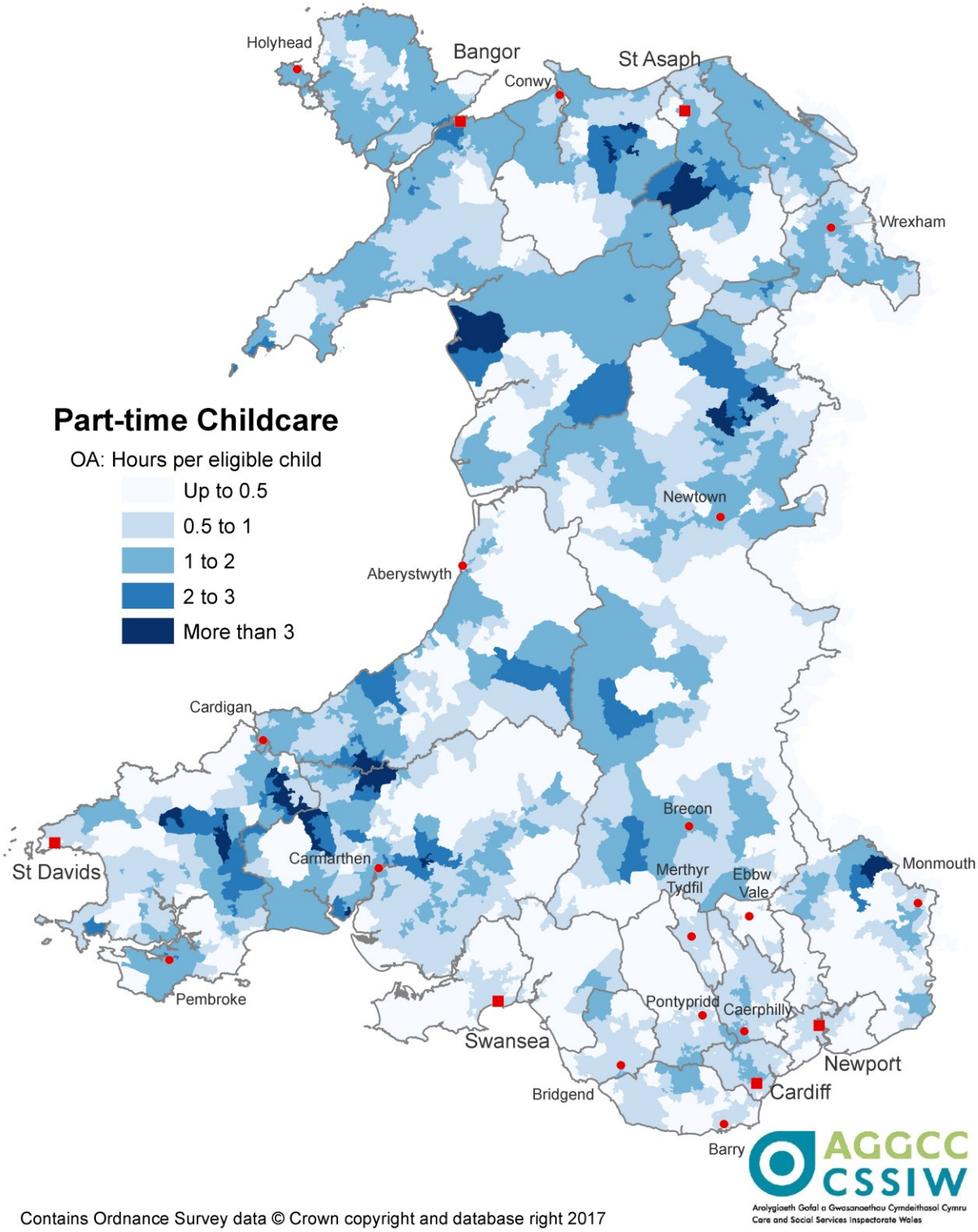


Figure 3e. Map of Wales displaying the number of childcare hours available for children up to the age of four living in working households, for part-time settings only



4. Early Implementer Areas

4.1 One of the main aims of this project was to inform the delivery of the new Childcare Offer. The Childcare Offer is being piloted in seven local authority areas from September 2017[16]. These areas were selected in order to achieve a balance between rural and urban communities and a good geographical spread across Wales to fully test the offer within the budget available. These areas will also be looking at the response to the free hours from both parents and childcare providers. Therefore, having an understanding of the availability of childcare in these areas prior to testing will help to frame and interpret the results of the pilots.

Rhondda Cynon Taf

4.2 Rhondda Cynon Taf is the second largest local authority in terms of households with dependent children, with just under 50,000 households. This accounts for approximately eight percent of all households with dependent children in Wales. However, the proportion of those households who would be eligible to receive the childcare offer is lower than the Welsh average, so that just over than 65 percent, the female employment rate, within the local authority[17], of these households would be eligible.

4.3 Additionally, the WIMD indicates that 74 percent of the local authority is in the 50 per cent most deprived category, 51 per cent is in the 30 per cent most deprived and 18 per cent is in the 10 per cent most deprived[18]. This means that nearly three quarters of Rhondda Cynon Taf is more deprived than half of the rest of Wales and that nearly one in five households are in the top ten per cent of most deprived areas in Wales.

4.4 The early implementation of the childcare offer is being tested in four school cluster areas in Rhondda Cynon Taf. These are located in Beddau in the Taf area of RCT, Ferndale in the Rhondda area, Mountain Ash in the Cynon area and the Ysgol Gyfun Rhydywaun cluster which covers the whole of the Cynon area for Welsh medium provision.

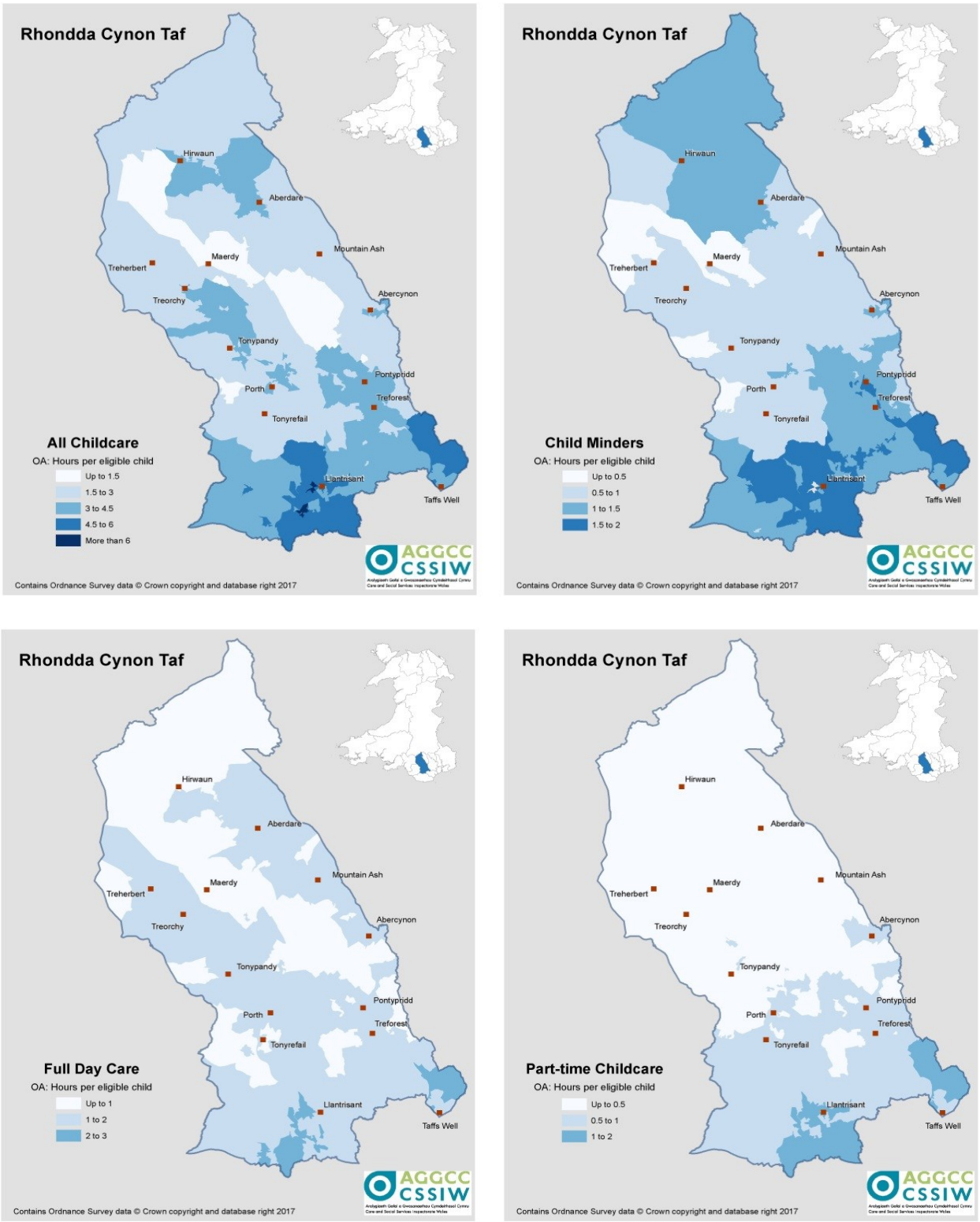
[16] See http://gov.wales/topics/people-and-communities/people/children-and-young-people/parenting-support-guidance/childcare/talk-childcare/pilot-areas/?lang=en
[17] See https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Persons-Employed
[18] See https://statswales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/WIMD-2014/wimd2014localauthorityanalysis

4.5 Rhondda Cynon Taf has a relatively low average number of available hours per child, at approximately three hours per eligible child, with a notable band of lower provision running down the middle of the local authority from the North to mid section around Maerdy. This is mostly due to there being few full day or part day care compared to the rest of Wales. CSSIW records show that there are 80 day care services in Rhondda Cynon Taf, of which 40 are full day[19]. There are however 167 child minders, and for the more densely populated areas, child minders make up roughly half of the capacity.

4.6 In accordance with the CSSIW records, childminders seem to offer the bulk of hours and generally, there is more provision in the south of the authority with some provision across the majority of the local authority. Full day care and part time childcare provision is distinctly lower in the northern to mid section of the local authority.

[19] See https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Services-for-Social-Care-and-Childrens-Day-Care/cssiwservicesandplaces-by-localauthority

Figure 4a. Maps of Rhondda Cynon Taf displaying the number of childcare hours available for children up to the age of four living in working households, for all childcare, child minders, full day and part-time settings



Swansea

4.7 The early implementer areas in Swansea are spread across the city. This targets areas with good eligibility and aims to test a mix of provision on schools sites and in day nursery settings. Wards with reasonable levels of employment have been chosen in an attempt to ensure sufficient eligible parents can take up the offer. The anticipated percentage of parents who will be eligible is based on the female employment rate for the local authority at 67 percent.

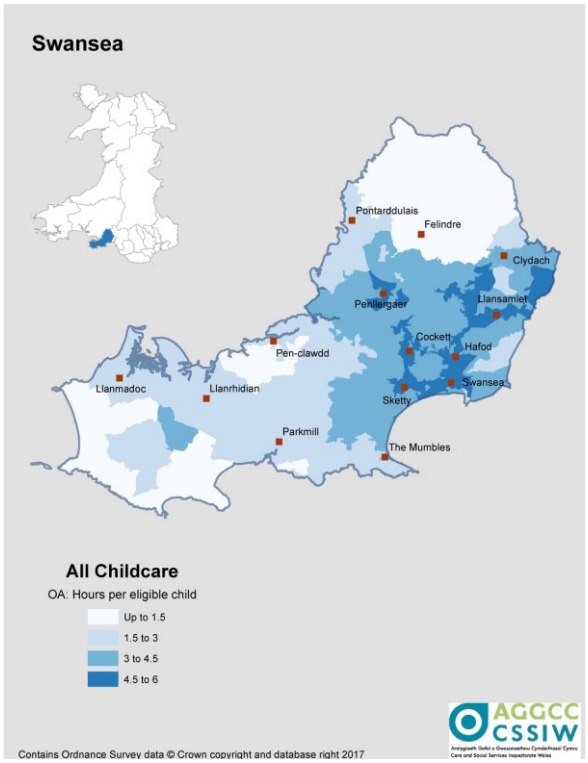
4.8 According to CSSIW records, there are 114 day care services in Swansea, 48 of which are full day care providers. There's a similar number of child minders registered with CSSIW in Swansea, totalling 147 providers[20].

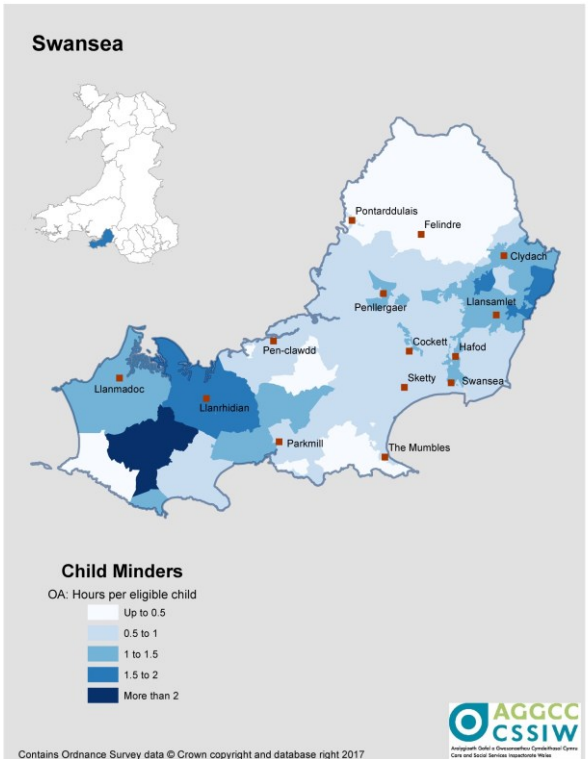
4.9 Generally a good level of provision across the authority, with full day care and child minder provision spanning the majority of the authority. However there is notably lower provision in the northern and western parts of Swansea of all types of childcare provision, particularly in the wards of Mawr and Pontarddulais.

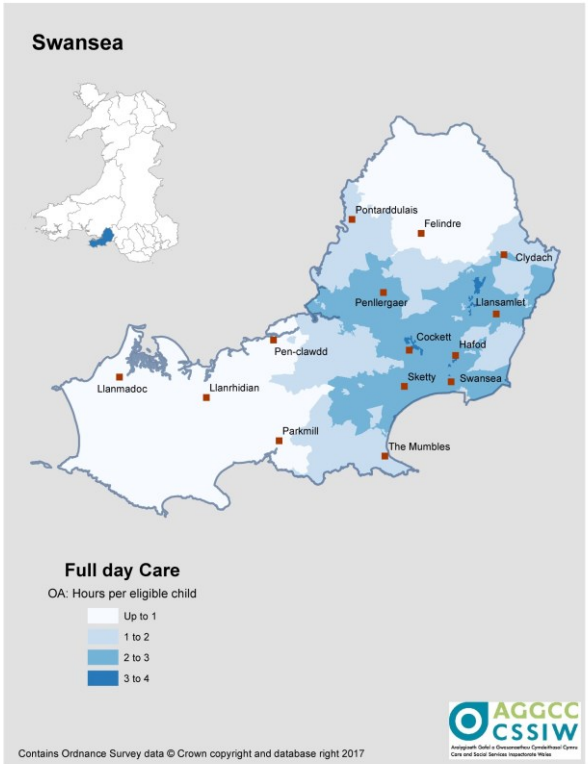
4.10 Additionally, there is almost no part day care provision across the authority. Full day care makes up the majority of the total capacity, but with child minders being predominant in the West part of the area, which is the less dense and more affluent part of the authority.

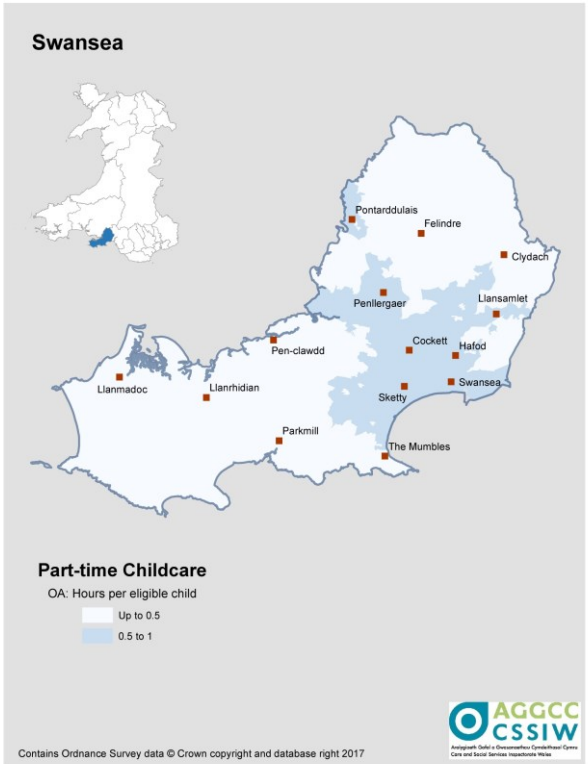
[20] See https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Services-for-Social-Care-and-Childrens-Day-Care/cssiwservicesandplaces-by-localauthority

Figure 4b. Maps of Swansea displaying the number of childcare hours available for children up to the age of four living in working households, for all childcare, child minders, full day and part-time settings









Blaenau Gwent

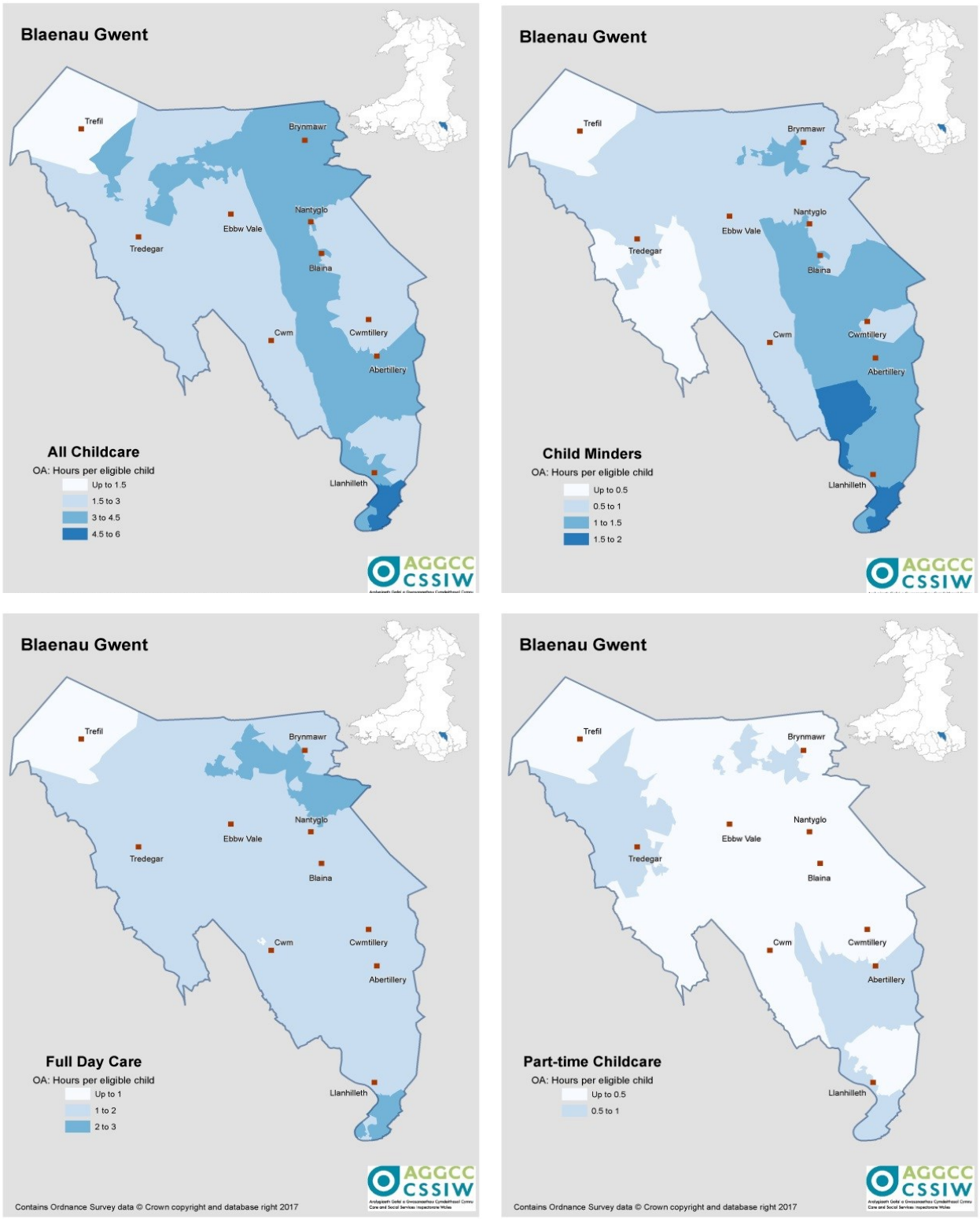
4.11 The employment rate is the lowest in Blaenau Gwent out of all the early implementer areas at 66.8 percent, with the female employment rate at 65.5 percent. Given this, Blaenau Gwent has agreed to test the whole of the local authority from September 2017. Given Blaenau Gwent's relatively low employment rates, we will be able to test the aim of the policy of removing childcare as a barrier to work.

4.12 The number of registered childcare providers in Blaenau Gwent includes 21 day care services, and 46 child minders according to CSSIW records. This means only 1.5 percent of childcare services are located in this local authority, accounting for 1.2 of all available places, but 2.2 percent of children up to the age of four live there.

4.13 Overall, capacity is roughly the same as the Welsh average. Full day care is spread evenly across the majority of the area at between one and three hours per eligible child, and those areas with more provision are almost entirely due to child minders. Similar to Swansea, there appears to be very little to no part day care available across the whole authority of Blaenau Gwent.

4.14 The ward Sirhowy, which includes Trefil which can be seen on the maps, appears to have very little to no supply of childcare when considering working households, whereas the ward of Llanhileth which runs to the southern end of the authority appears to have much higher level of childcare provision.

Figure 4c. Maps of Blaenau Gwent displaying the number of childcare hours available for children up to the age of four living in working households, for all childcare, child minders, full day and part-time settings



Isle of Anglesey and Gwynedd

4.15 Gwynedd have selected five wellbeing areas to deliver the offer from September 2017. These five areas provide a real mix of demographics, rurality and provision. Some have better levels of provision and capacity than others and some rural areas, such as Ffestiniog, have very low numbers of children so they will be evaluating how easy provision is to find for children here.

4.16 Bangor and Caernarfon have been selected as they are close to the Anglesey border to evaluate the travel to work routes, how the offer works cross border and to monitor the behaviour of parents to see whether they use childcare settings close to work or home.

4.17 Anglesey has selected a mix of rural and relatively urban areas, and areas where parents are commuting over the Menai Bridge to take up the offer in Gwynedd.

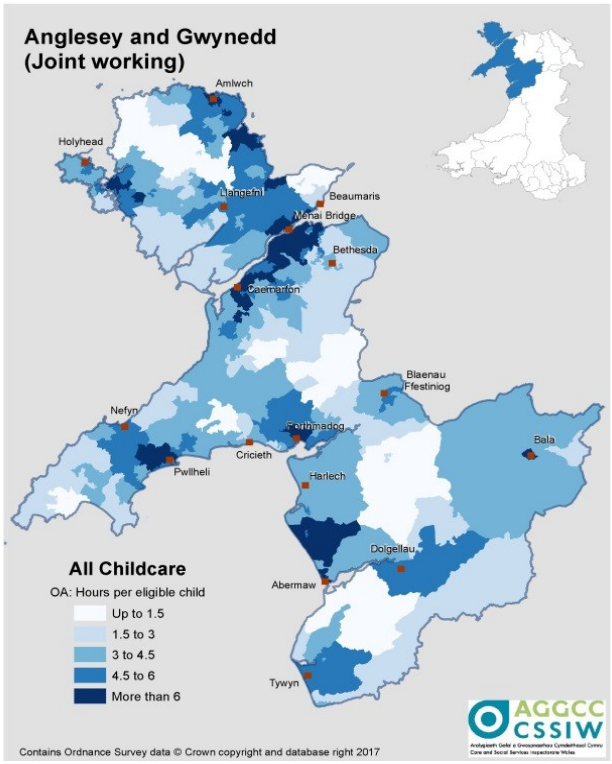
4.18 ONS employment figures in Gwynedd and Anglesey are high in comparison to the other early implementer areas at 73.8 per cent and 71 per cent respectively. Gwynedd's female employment rate is 69.9 per cent, the highest out of all the early implementer areas, and Anglesey's employment rate is 69.7 per cent.

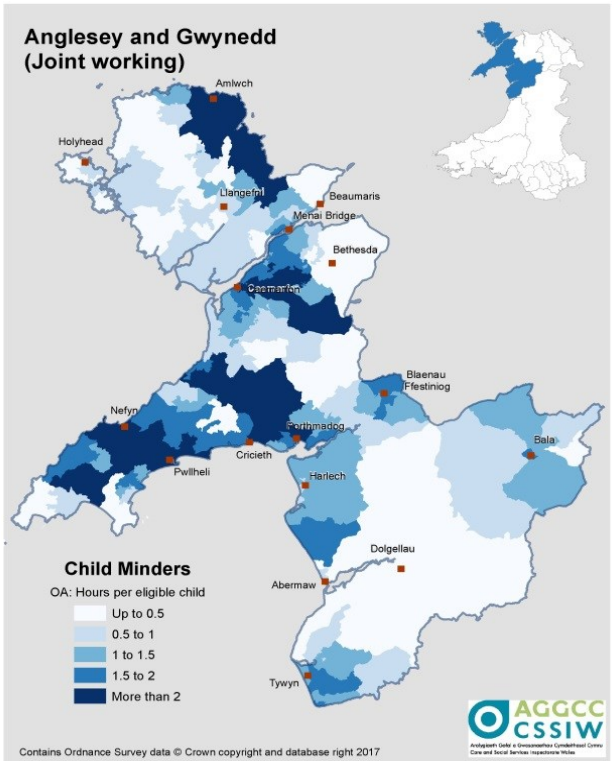
4.19 There are 222 childcare services in Gwynedd and 132 in Anglesey[21]. In both areas, approximately half of these services are child minders. There are 99 day care centres in Gwynedd, of which only 26 are full time, and in Anglesey, only 16 of the 79 day care centres are full time.

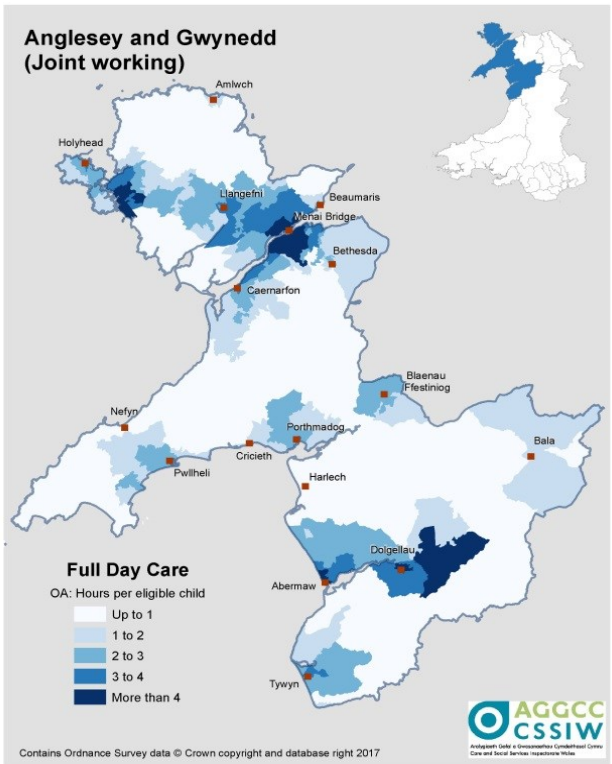
4.20 Generally there is a high level of capacity in this area when considering all childcare overall, each occupying a different part of the area. However, when considering full day care alone, there is good provision in some clusters including around Dolgellau and across Anglesey between Menai Bridge and Holyhead. More widely across the rest of both local authorities there is little to no capacity for full day care provision.

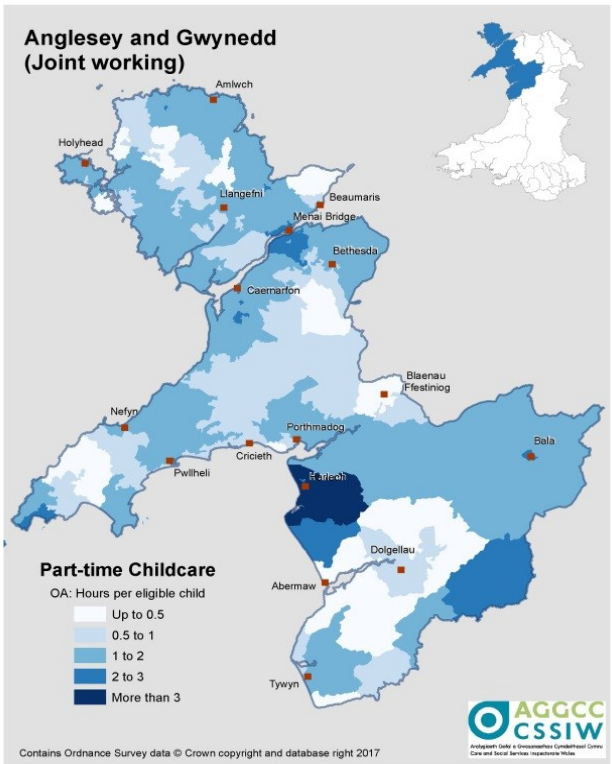
[21] See https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Services-for-Social-Care-and-Childrens-Day-Care/cssiwservicesandplaces-by-localauthority

Figure 4d. Maps of Isle of Anglesey and Gwynedd displaying the number of childcare hours available for children up to the age of four living in working households, for all childcare, child minders, full day and part-time settings









Caerphilly

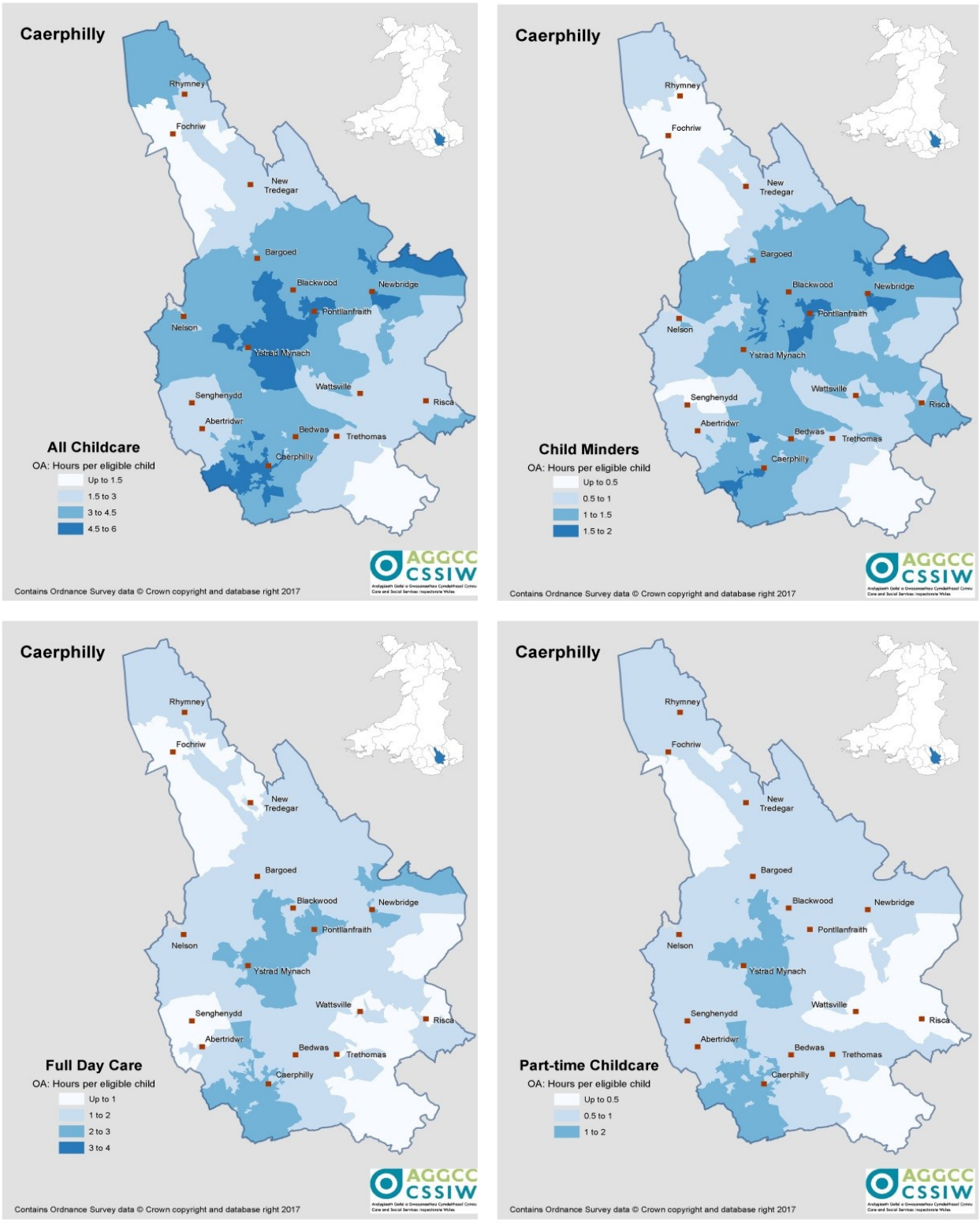
4.21 Caerphilly has chosen the mid-valleys East region to be part of the early implementation of the childcare offer, with the areas selected providing a good mix of urban and rural settings as well as differing levels of affluence. As a local authority, the ONS employment statistics indicate 71 percent are employed overall, and 66.8 percent of females.

4.22 The Local Authority will test integration with the offer in terms of the number of childcare places and providers offered in this region encompassing Welsh, additional learning needs and Flying Start provision.

4.23 There are 164 child minders and 109 day care centres in Caerphilly; of these, 35 are full time. This means 6.2 percent of all childcare services are found in Caerphilly, providing approximately 2,400 full time and 1,800 part time places. This equates to 5.1 percent of the total places across Wales, to provide for 6.1 percent of the children up to the age of four.

4.24 Childcare availability in Caerphilly appears around the more urban areas of Caerphilly town itself and Ystrad Mynach. Child minders and full day services are both found in these areas, with a large degree in overlap in their coverage. However, full day care appears to provide twice as many hours per eligible child in these areas as child minders. Part time day care is also found in the same areas, but no more than two hours per eligible child.

Figure 4e. Maps of Caerphilly displaying the number of childcare hours available for children up to the age of four living in working households, for all childcare, child minders, full day and part-time settings



Flintshire

4.25 Flintshire has chosen the areas of Buckley, Bagillt and Broughton to allow testing in areas of high employment as well as potential cross border take up (between England and Wrexham) and travel to work routes and behaviours.

4.26 Flintshire have also chosen wards which have Flying Start areas within the boundaries (with the exception of Flint and Mold due to financial constraints) which will test the transition from Flying Start to the Childcare Offer and whether the policy achieves its aims of supporting parents to work.

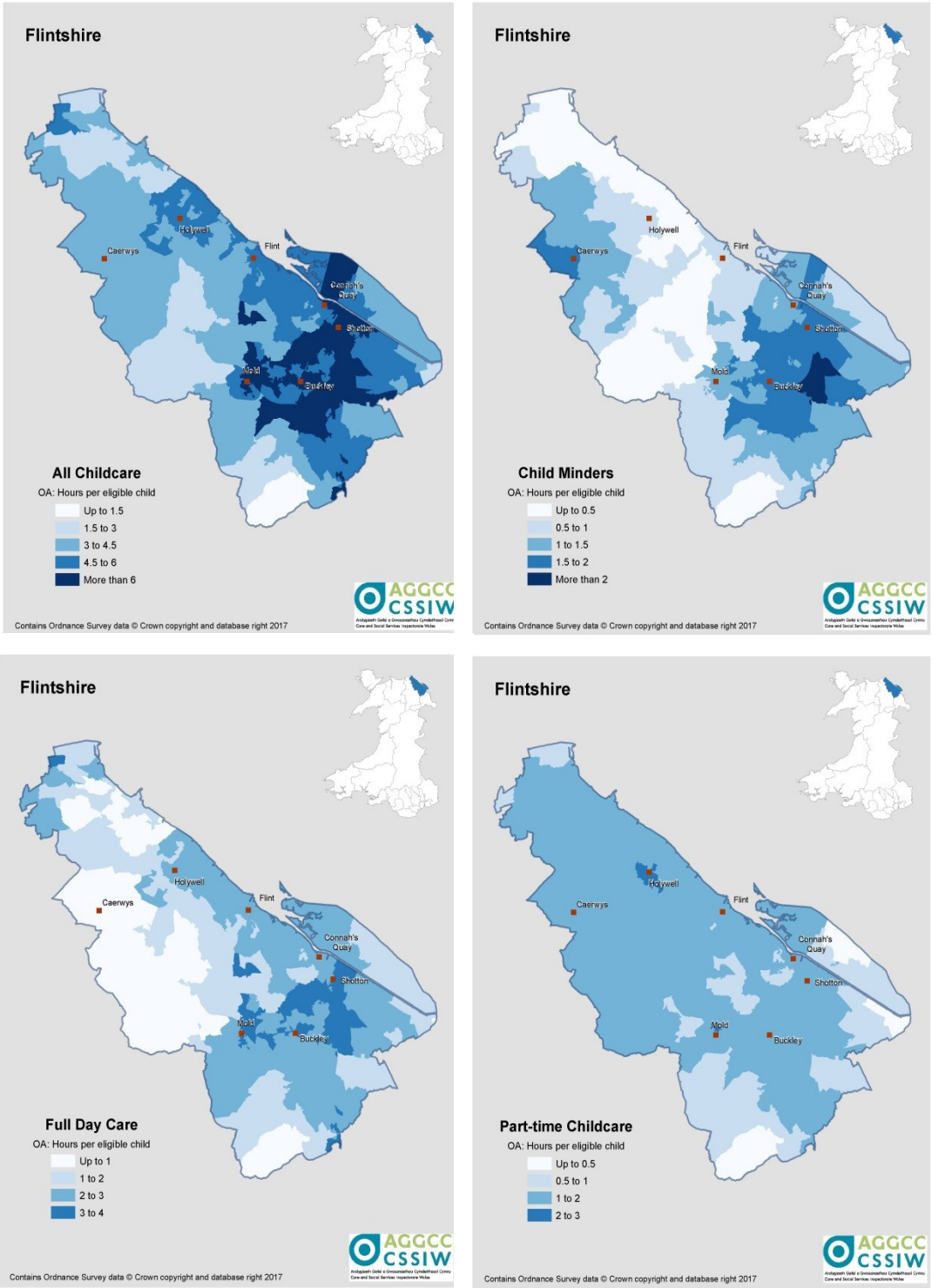
4.27 The Flintshire early implementer area will provide interesting information in relation to maintained (e.g. schools) and non maintained (e.g. private nurseries) settings, since they only use maintained settings when demand outstrips non-maintained provision for foundation phase for three year olds.

4.28 The average distribution of childcare services across Wales is 55 percent child minders, 15 percent full day care and 30 percent part time day care. However, in Flintshire, part time day care accounts for 36 percent of all services, whereas full time accounts for only 11 per cent.

4.29 Like most other North Wales areas, Flintshire has a relatively high provision of childcare. The areas with particularly high capacity have a high number of both child minders and full day care. However, this is supported by a relatively high level of part time day care across the whole area; there are very few parts of the area with no part time day care availability.

4.30 Unlike other early implementer areas in the South, Flintshire has a higher proportion of childcare services relative to the pre-school child population. Roughly six percent of services, and seven percent of places, in Wales are found in Flintshire, but only 4.9 percent of children up to the age of four live there.

Figure 4f. Maps of Flintshire displaying the number of childcare hours available for children up to the age of four living in working households, for all childcare, child minders, full day and part-time settings



5. Conclusions

5.1 It is clear that the childcare market and provision available to families represents a complex picture, and formal childcare provision across Wales varies by region and by setting type. The distribution of child minders, full day care settings and part time settings are largely distributed across the South East and the North regions, with full day care settings clustered around urban areas.

5.2 It was estimated that childcare capacity would potentially be highest in affluent areas, and especially in the North where population density is lower. In general, this appears to be the case, with higher childcare capacity levels in urban and affluent areas. The areas around main towns and cities have slightly higher averages than more rural areas, with lower levels of availability typically in rural and disadvantaged areas.

5.3 There are also several pockets of particularly high availability. These areas exist where the number of children in that area is lower than average, and the available childcare places are high. However, the results of the analysis suggest that even the areas with the highest capacity per child are able to provide little more than six hours per child; there are some areas with no childcare availability.

5.4 Of all childcare provider types, child minders appear to show the most marked difference when only eligible households are included. This suggests that child minders become a more prevalent childcare type in lower employment areas.

5.5 An evaluation is currently underway of those areas involved in the early implementation of the Childcare Offer which will be considering the process and looking to identify any impacts of the Childcare Offer. This will explore the effect of the Childcare Offer on demand and capacity of the childcare settings within the areas involved in the pilot. This will go someway to consider the demand for and the use of formal childcare within the early implementer areas, but further work is needed to understand this on a national level.

5.6 As part of pulling together the Workforce Plan, the childcare sector in Wales has been given priority sector status and funding has been announced for business support services for childcare providers. Considering these findings and recent policy developments, areas which have been shown to have limited childcare capacity could be targeted to improve the childcare capacity. Officials are working closely with colleagues responsible for business support and employability, to pull together a support package for the sector.

5.7 Although this project attempted to produce a measure of supply against demand for Wales, it is only potential and estimated demand that has been used, therefore caution should be taken around interpretation of areas of potential demand for providers. There may be a number of factors contributing to the cold spots of childcare provision nationally, and further work is needed to understand the parental behaviours that contribute to these factors and to gain a clearer understanding of actual demand for formal childcare.