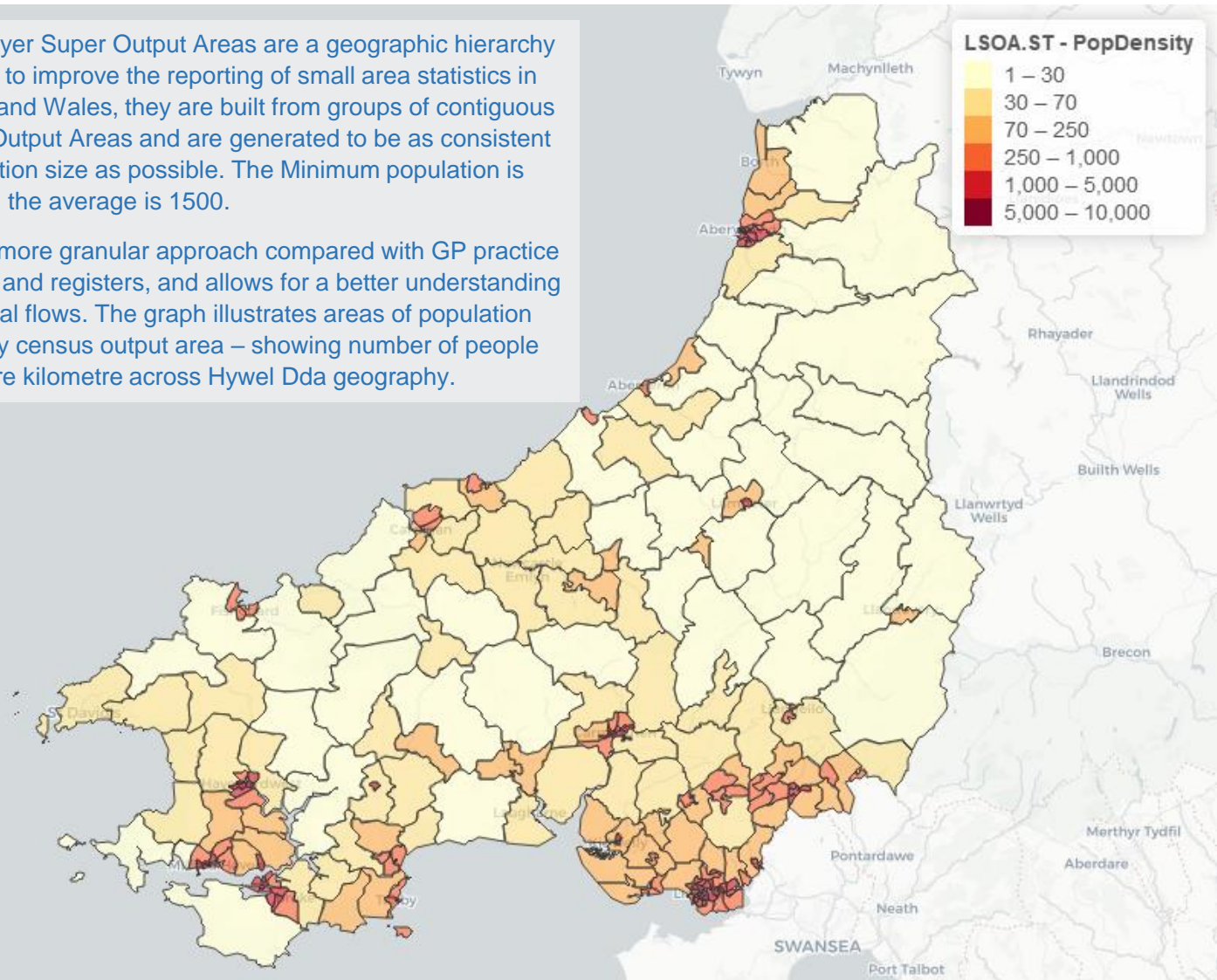


POPULATION DENSITY BY LSOA

Drivetimes and locations have been mapped from Lower Layer Super Output Areas, which is the smallest population collection that we can use for population analysis.

Lower Layer Super Output Areas are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales, they are built from groups of contiguous Census Output Areas and are generated to be as consistent in population size as possible. The Minimum population is 1000 and the average is 1500.

This is a more granular approach compared with GP practice locations and registers, and allows for a better understanding of potential flows. The graph illustrates areas of population density by census output area – showing number of people per square kilometre across Hywel Dda geography.



The map illustrates population density alongside existing, developing, or potential options for sites in the future. Locations have been categorised in to the following:

Existing community site

Alternative Options



Description	Address Used
Prince Philip Hospital	SA14 8QF
Glangwili General Hospital	SA31 2AF
Withybush General Hospital	SA61 2PZ
Bronglais General Hospital	SY23 1ER
South Pembrokeshire Hospital	SA72 6SY
New Tenby Hospital	SA70 8AG
Aberaeron Hospital	SA46 0JJ
Tregaron Hospital	SY25 6JP
Cardigan Hospital	SA43 1DP
Amman Valley Hospital	SA18 2BQ
Llandovery Hospital	SA20 0LA
Crymch	SA41 3RJ
Fishguard	SA65 9HA
Delta Lakes	SA15 2DR
Minareon ICC	SA46 0DY
Aberystwyth ICC	SY23 1ER
Cylch Caron ICC	SY25 6JP
Cardigan ICC	SA43 1DP
Cross Hands ICC	SA14 6SU
Llandysul	SA44 4DF
Lampeter	SA48 7DG
Newcastle Emlyn	SA38 9AP
Milford Haven	SA73 3AU

A&E SITE OPTIONS

The map illustrates population density alongside existing, and potential options for sites in the future. Locations have been categorised in to the following, with the new build zone as in proposals highlighted separately:

Existing major Site

New Build Zone Site Options

Alternative Site Options

LSOA.ST - PopDensity

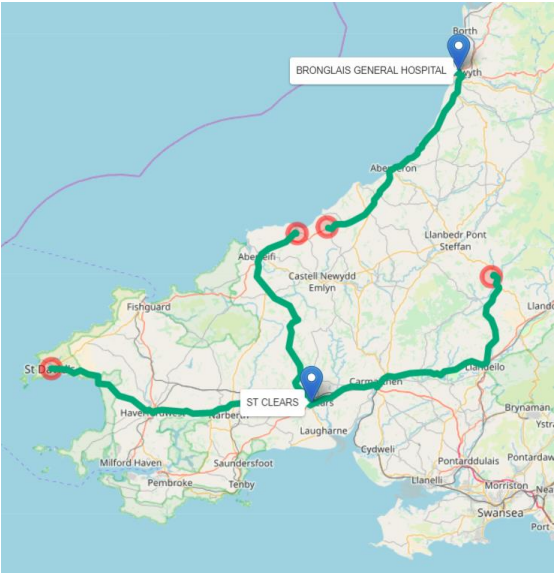


Description	Address Used
GGH	SA31 2AF
WGH	SA61 2PZ
BGH	SY23 1ER
NARBERTH	SA67 8TY
WHITLAND	SA67 8UQ
ST CLEARS	SA33 4JN
ARMARTHEN SHOW GROUND	SA33 5DR
LLANELLI	SA15 1YH
CROSS HANDS	SA14 6LR
NEWCASTLE EMLYN	SA38 9AP
CANASTON BRIDGE	SA67 8DF
HAVERFORDWEST	SA61 1NF

DRIVETIMES – BY TIME OF DAY

In order to understand impact on travel time, we have analysed travel times based on optimistic and pessimistic as well as best guess estimates – this is based on historic data via google mapping, and extracted from the population weighted centroid of each LSOA.

There is obviously a variance in travel estimates by time of day – as an example the graph shows the average weekday times for 4 different longest routes to a new site option scenario. Generally the peak times are between 10am – 4pm and particularly 10am - 11am and 1pm-2pm.

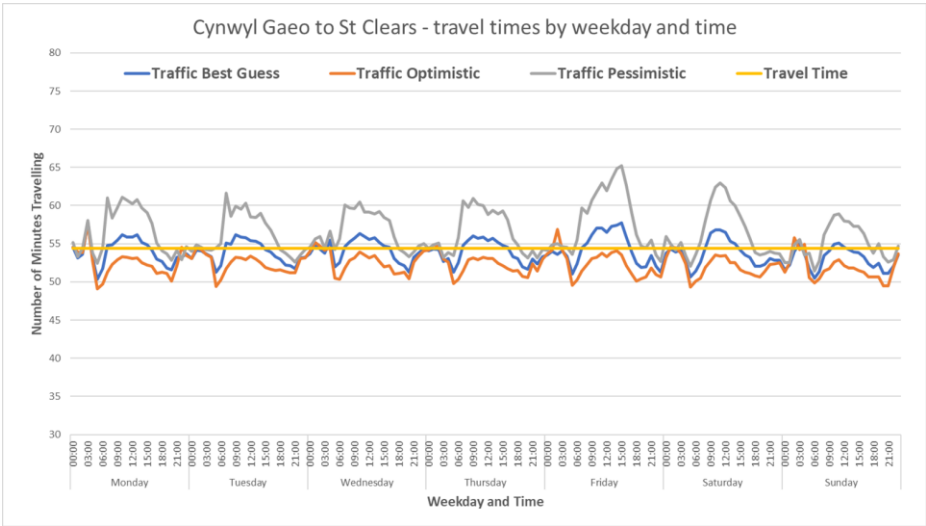
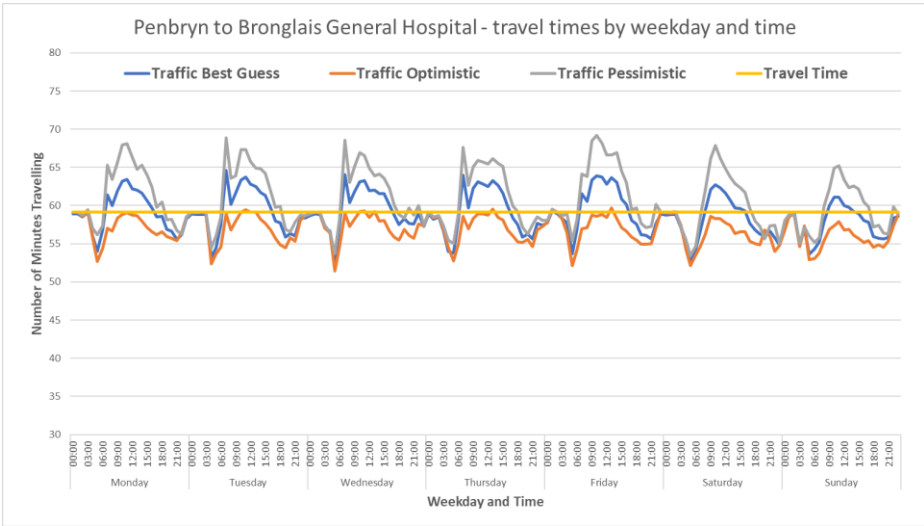
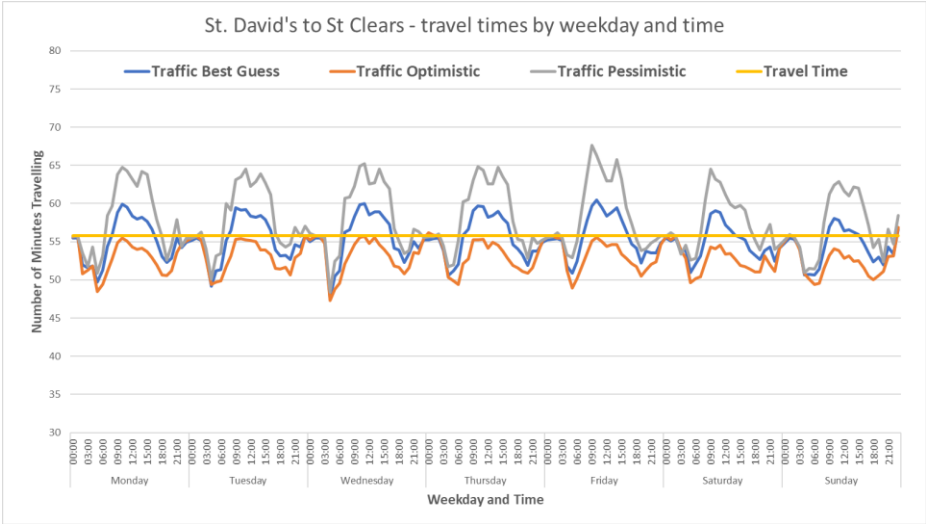
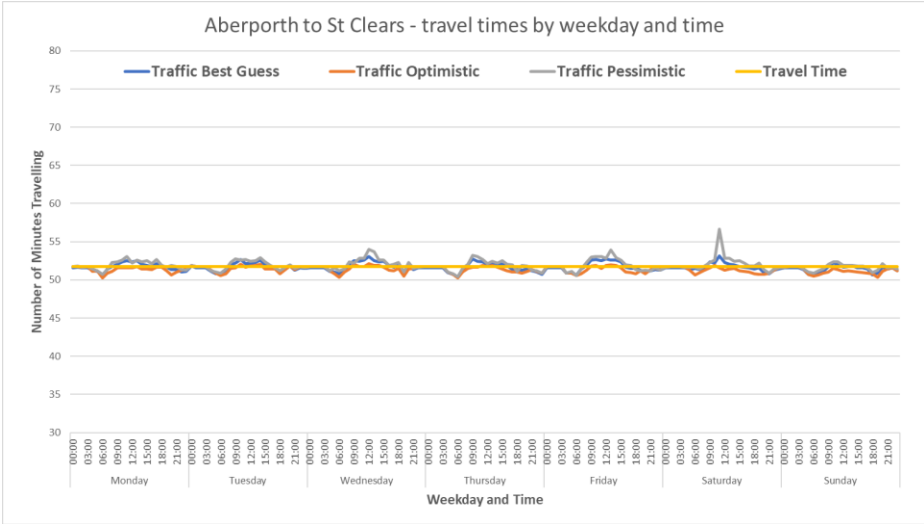


Average weekday travel - peaks in travel time



DRIVETIMES – BY TIME OF DAY AND DAY OF WEEK

It is clear that traffic conditions impact travel times on some routes more than others, for example travel on the A40 to St. Clears option shows higher impact than the route from Aberporth. Detailed analysis for urgent and emergency care for each site option is shown on the following slides - we base peak traffic conditions and pessimistic travel time estimates on a 10am departure.



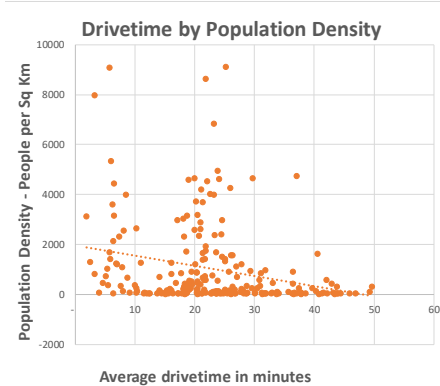
STATUS QUO

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	50 minutes	52 minutes
Within 30 minutes	79%	70%
Within 45 minutes	98%	95%
Within 60 minutes	100%	100%

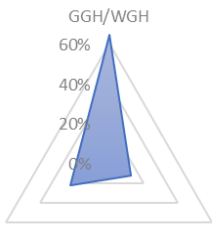
Population Density Plot



Longest Drives:

Ward Area	Drive (mins)	To nearest location of
Aberporth	50	GLANGWILI GENERAL HOSPITAL
Aberporth	49	GLANGWILI GENERAL HOSPITAL
Llangybi	47	BRONGLAIS GENERAL HOSPITAL
Llandysilio-gogo	46	GLANGWILI GENERAL HOSPITAL
Penbryn	44	GLANGWILI GENERAL HOSPITAL
Beulah	44	GLANGWILI GENERAL HOSPITAL
Pen-parc	44	WITHYBUSH GENERAL HOSPITAL
Cynwyl Gaeo	43	GLANGWILI GENERAL HOSPITAL
Pen-parc	43	WITHYBUSH GENERAL HOSPITAL

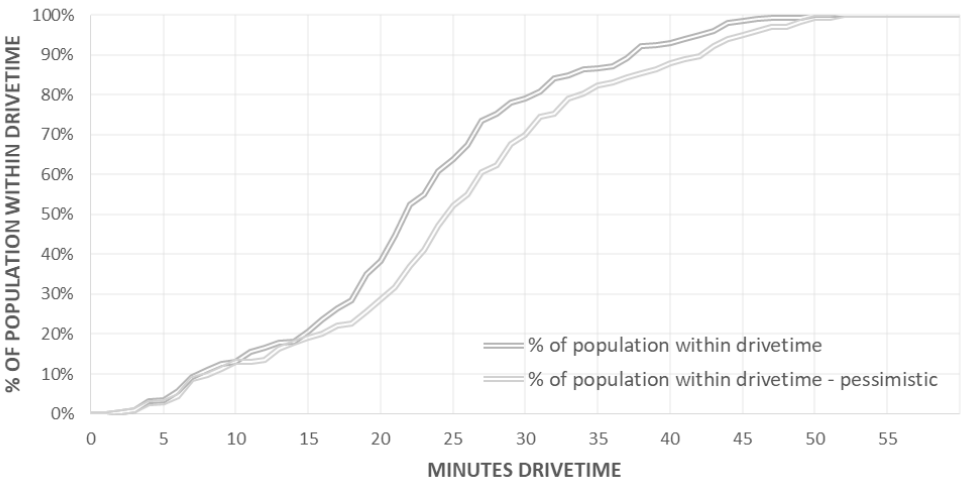
% of population living closest to



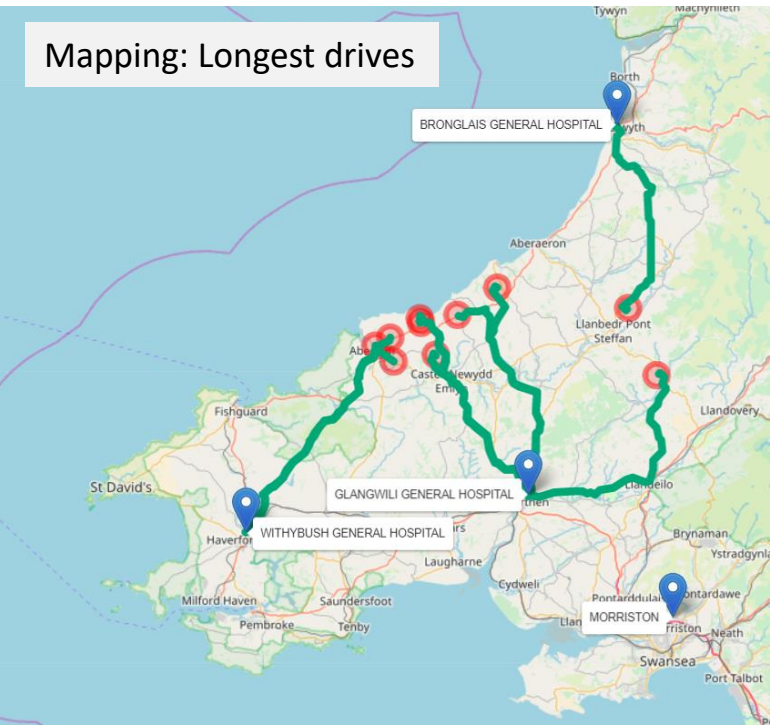
Currently 64% of the population closest to either Withybush (34%) or Glangwili (30%), with 13% closest to Bronglais. 23% have Morryston as their closest full A&E.

Large distance / density combinations include Tyisha, Bigyn, Tenby: South

DRIVETIMES - CUMULATIVE POPULATION COVERAGE



Mapping: Longest drives



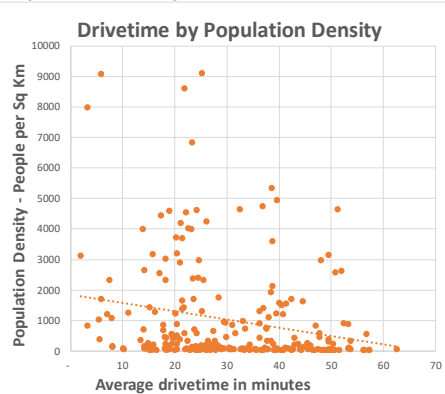
SITE OPTION – ST CLEARS

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	56 minutes	65 minutes
Within 30 minutes	58%	49%
Within 45 minutes	91%	82%
Within 60 minutes	100%	99%

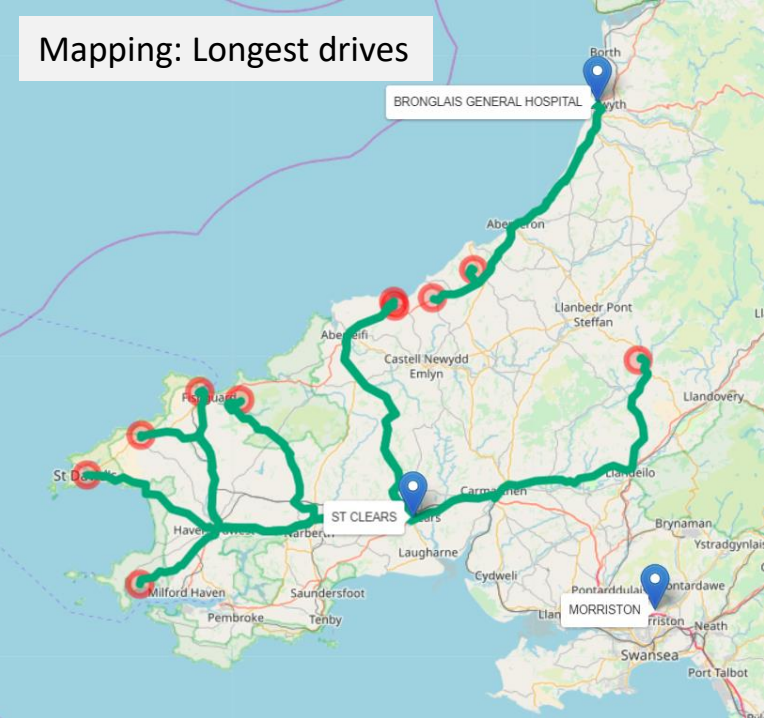
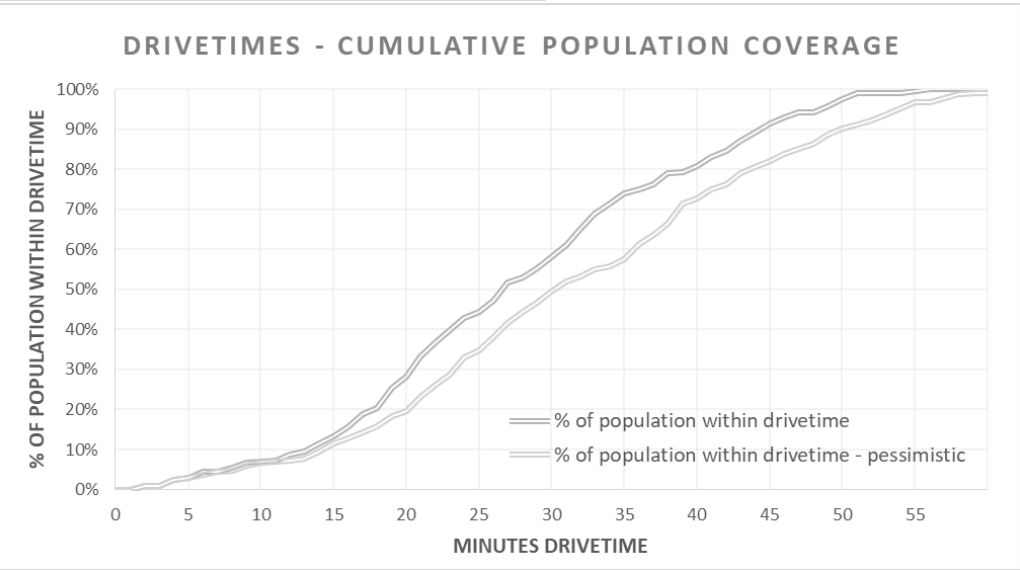
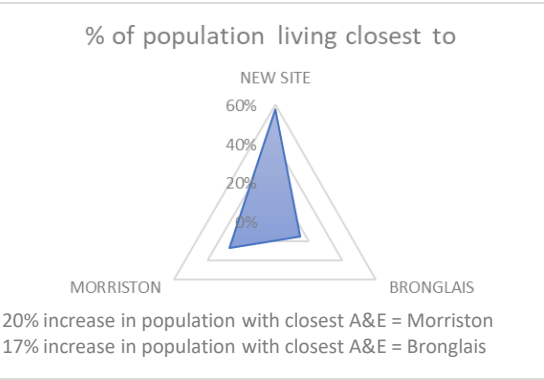
Population Density Plot



Large distance / density combinations include
Milford: Hakin, Tyisha, Haverfordwest: Garth

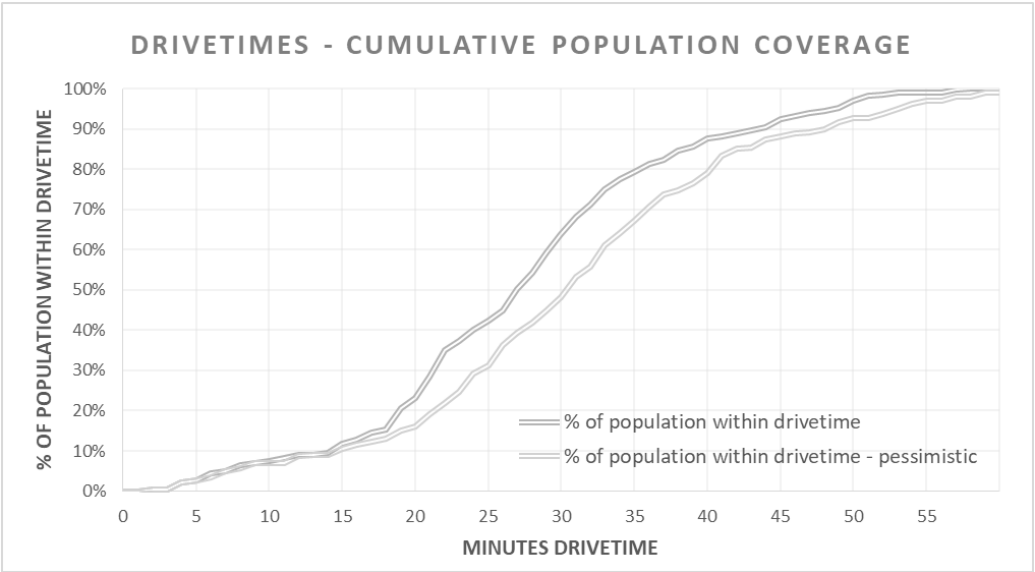
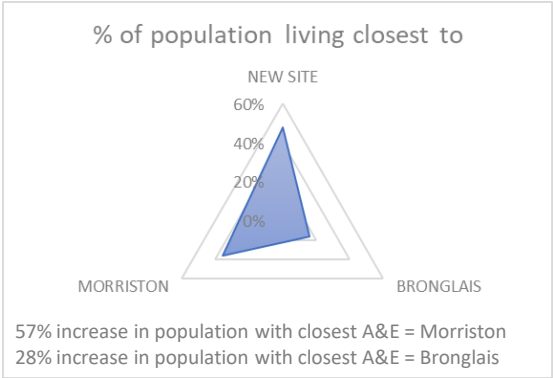
Longest Drives:

Ward Area	Drive (mins)	To nearest location of
St. David's	56	ST CLEARS
Cynwyl Gaeo	54	ST CLEARS
Llanrhian	51	ST CLEARS
Dinas Cross	50	ST CLEARS
Penbryn	50	BRONGLAIS GENERAL HOSPITAL
Aberporth	50	ST CLEARS
Goodwick	50	ST CLEARS
St. Ishmael's	50	ST CLEARS
Llandysilio-gogo	49	BRONGLAIS GENERAL HOSPITAL



SITE OPTION – NARBERTH

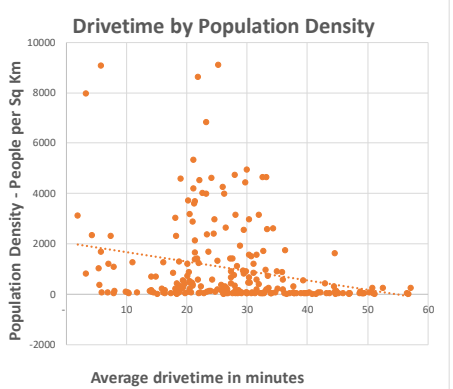
The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.



Key Statistics:

Max drivetime	Average Drivetime	Peak with pessimistic traffic conditions
Within 30 minutes	57 minutes	62 minutes
Within 45 minutes	64%	48%
Within 60 minutes	92%	88%
Within 60 minutes	100%	99%

Population Density Plot



Large distance / density combinations include Tyisha, Bigyn

Longest Drives:

Ward Area	Drive (mins)	To nearest location of
Llandysul Town	57	BRONGLAIS GENERAL HOSPITAL
Cynwyl Gaeo	57	MORRISTON
Capel Dewi	57	BRONGLAIS GENERAL HOSPITAL
Llanybydder	53	BRONGLAIS GENERAL HOSPITAL
Llandovery	51	MORRISTON
Llanwenog	51	BRONGLAIS GENERAL HOSPITAL
Llandovery	51	MORRISTON
Penbryn	49	NARBERTH
Llanfihangel-ar-Arth	49	NARBERTH



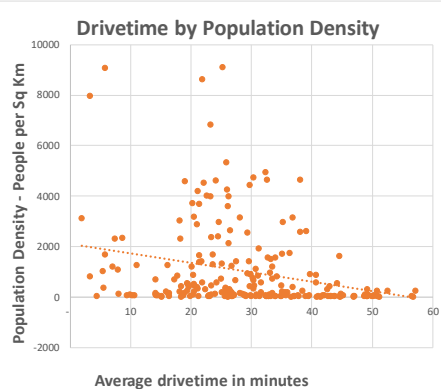
SITE OPTION – WHITLAND

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	57 minutes	62 minutes
Within 30 minutes	57%	44%
Within 45 minutes	91%	84%
Within 60 minutes	100%	99%

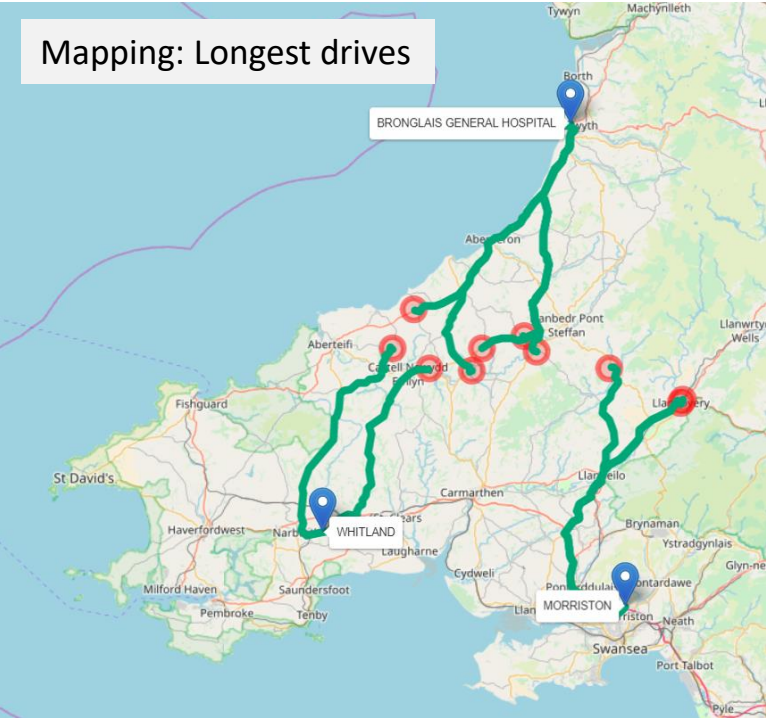
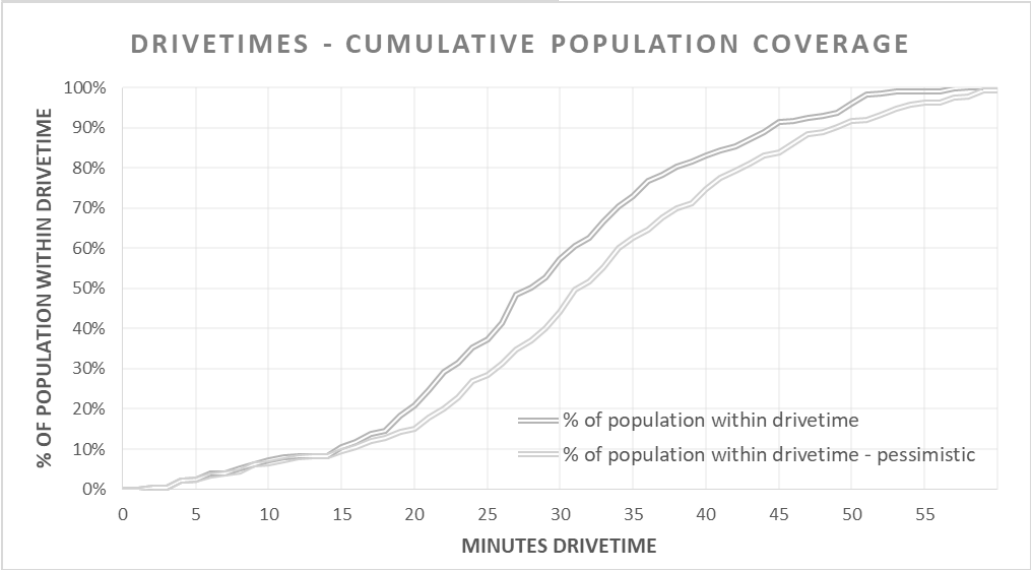
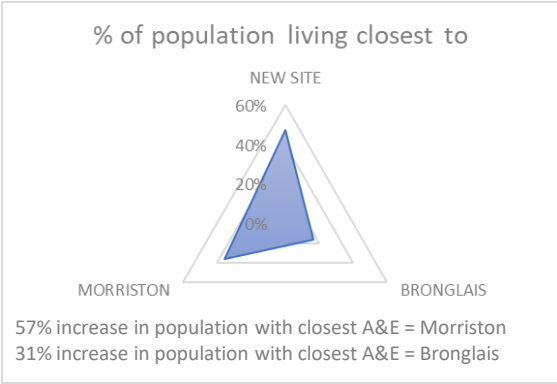
Population Density Plot



Large distance / density combinations include Tyisha, Bigyn, Milford: Hakin

Longest Drives:

Ward Area	Drive (mins)	To nearest location of
Llandysul Town	57	BRONGLAIS GENERAL HOSPITAL
Cynwyl Gaeo	57	MORRISTON
Capel Dewi	57	BRONGLAIS GENERAL HOSPITAL
Llanybydder	53	BRONGLAIS GENERAL HOSPITAL
Llandovery	51	MORRISTON
Llanwenog	51	BRONGLAIS GENERAL HOSPITAL
Beulah	51	WHITLAND
Llandyfriog	50	WHITLAND
Penbryn	50	BRONGLAIS GENERAL HOSPITAL



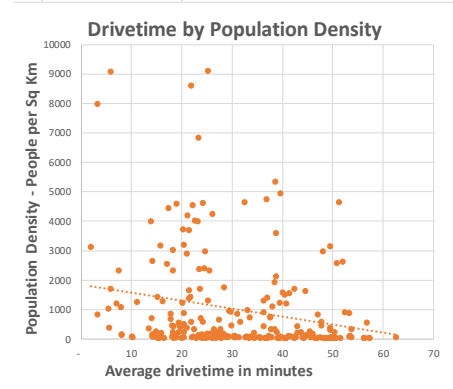
SITE OPTION – CARMARTHEN SHOW GROUND

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	63 minutes	73 minutes
Within 30 minutes	54%	46%
Within 45 minutes	83%	69%
Within 60 minutes	100%	95%

Population Density Plot

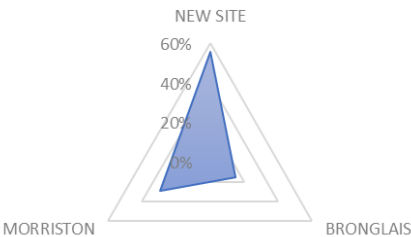


Large distance / density combinations include
Milford: Hakin, Tyisha, Haverfordwest: Garth

Longest Drives:

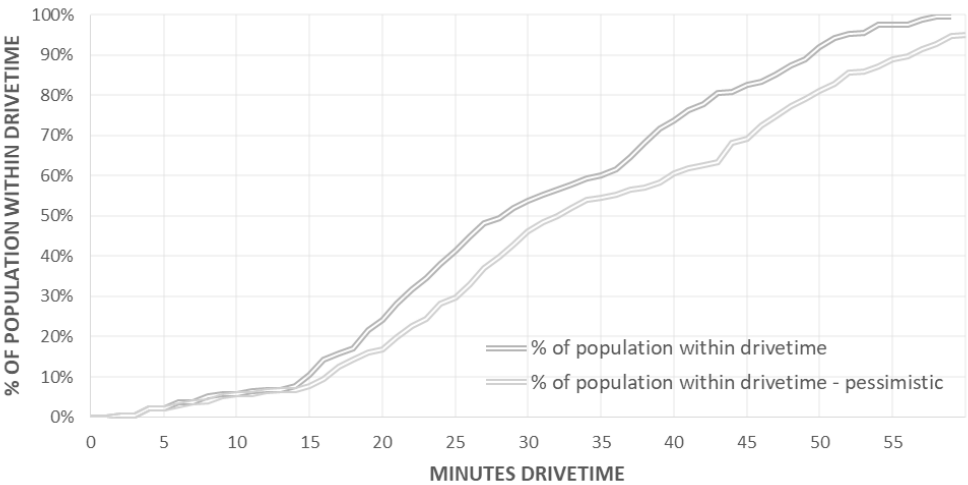
Ward Area	Drive (mins)	To nearest location of
St. David's	63	CARMARTHEN SHOW GROUND
Llanrhian	57	CARMARTHEN SHOW GROUND
Dinas Cross	57	CARMARTHEN SHOW GROUND
Goodwick	57	CARMARTHEN SHOW GROUND
St. Ishmael's	56	CARMARTHEN SHOW GROUND
Cynwyl Gaeo	56	CARMARTHEN SHOW GROUND
Aberporth	54	CARMARTHEN SHOW GROUND
Aberporth	53	CARMARTHEN SHOW GROUND
Newport	53	CARMARTHEN SHOW GROUND

% of population living closest to

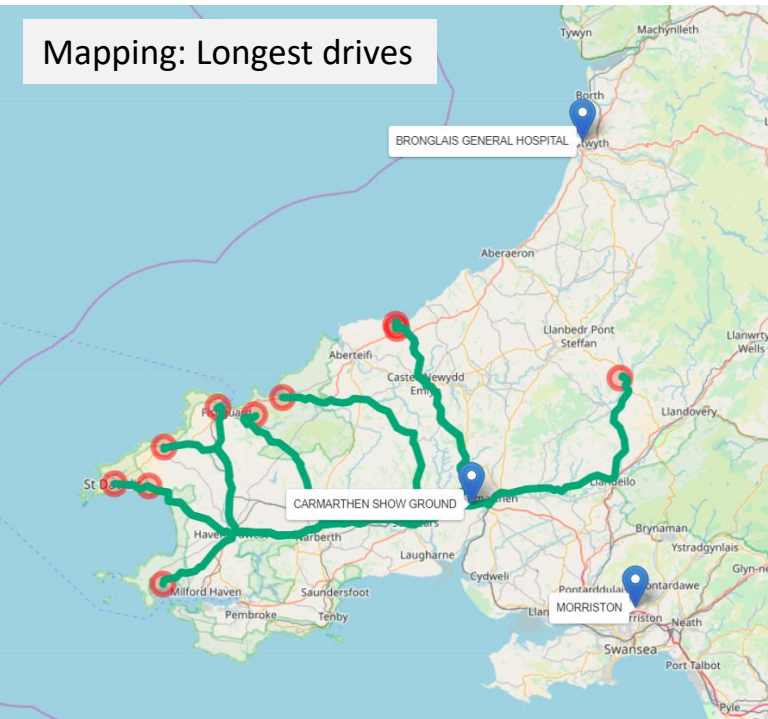


29% increase in population with closest A&E = Morriston
17% increase in population with closest A&E = Bronglais

DRIVETIMES - CUMULATIVE POPULATION COVERAGE

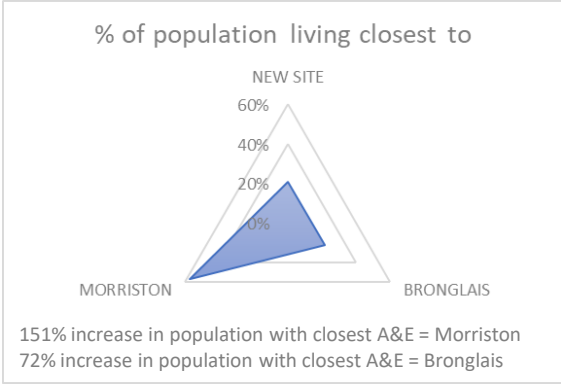


Mapping: Longest drives



SITE OPTION – LLANELLI

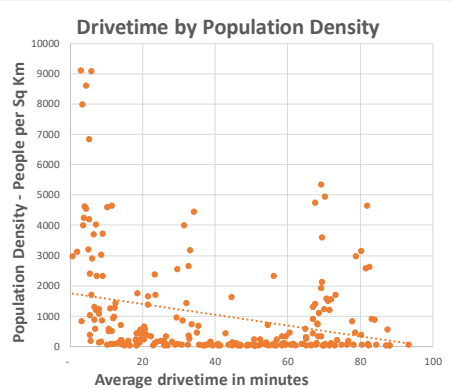
The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.



Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	93 minutes	107 minutes
Within 30 minutes	42%	40%
Within 45 minutes	54%	51%
Within 60 minutes	69%	61%

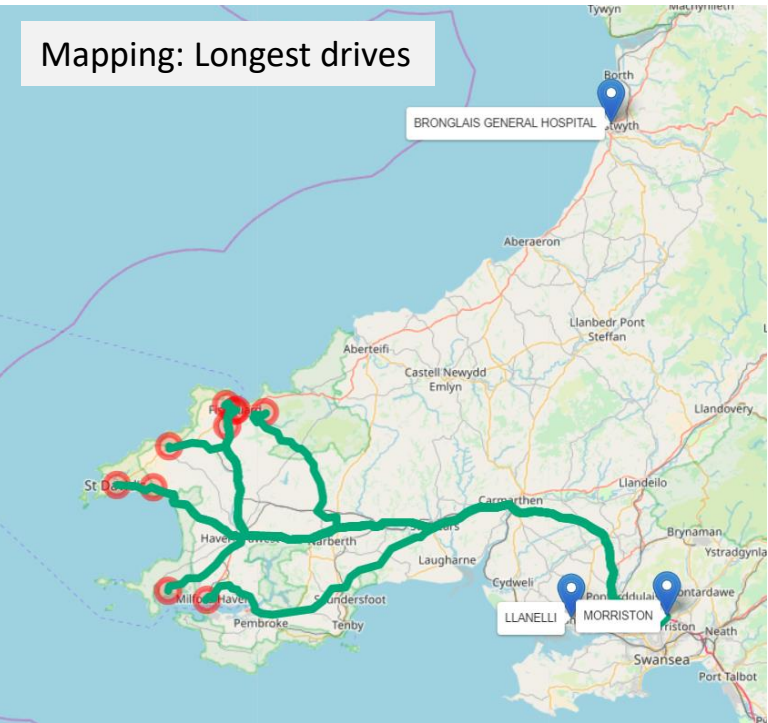
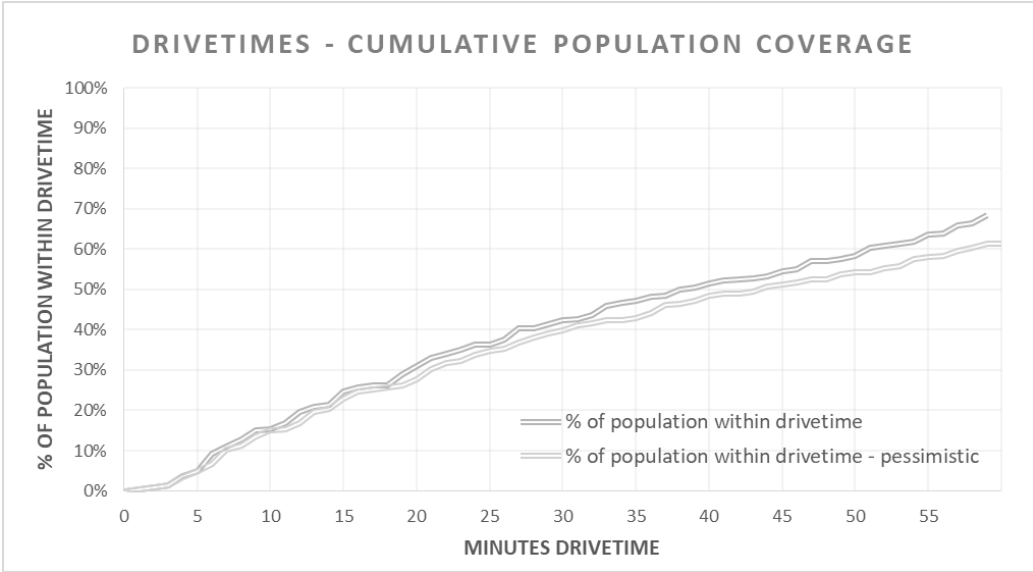
Population Density Plot



Large distance / density combinations include
Milford, Haverfordwest, Pembroke Dock

Longest Drives:

Ward Area	Drive (mins)	To nearest location of
St. David's	93	MORRISTON
Llanrhian	88	MORRISTON
Dinas Cross	88	MORRISTON
Goodwick	88	MORRISTON
St. Ishmael's	87	MORRISTON
Solva	84	MORRISTON
Fishguard North East	84	MORRISTON
Milford: Hakin	83	MORRISTON
Scleddau	82	MORRISTON



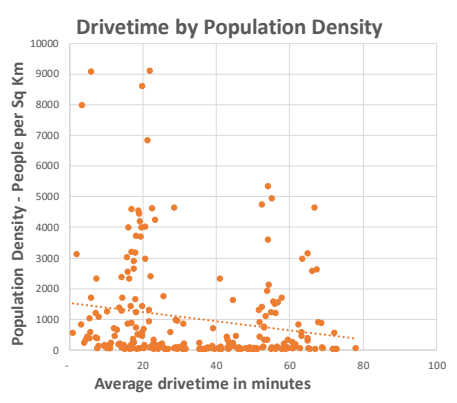
SITE OPTION – CROSS HANDS

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	78 minutes	93 minutes
Within 30 minutes	50%	46%
Within 45 minutes	65%	58%
Within 60 minutes	87%	70%

Population Density Plot

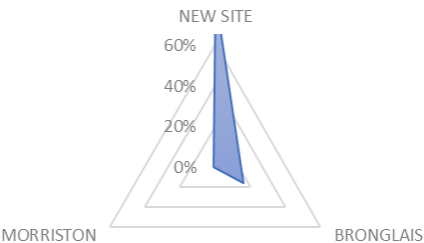


Large distance / density combinations include Milford, Haverfordwest, Pembroke Dock

Longest Drives:

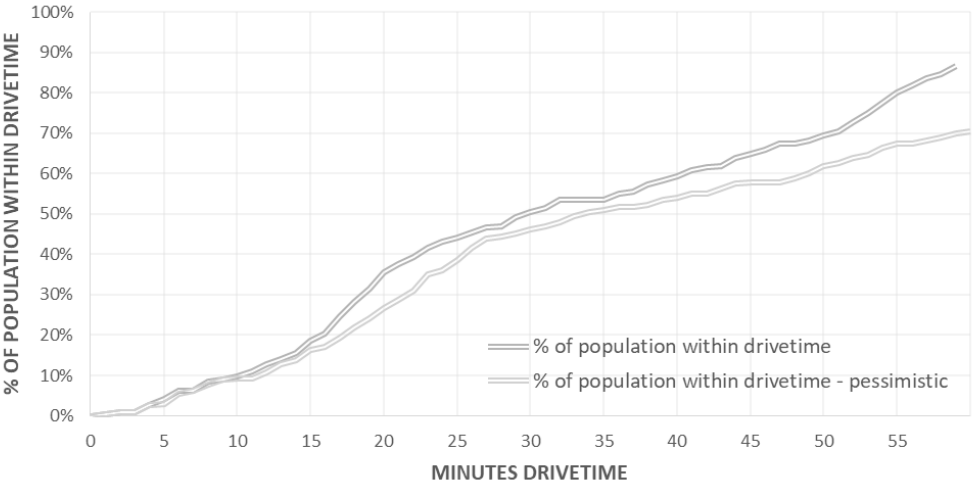
Ward Area	Drive (mins)	To nearest location of
St. David's	78	CROSS HANDS
Llanrhian	73	CROSS HANDS
Dinas Cross	73	CROSS HANDS
Goodwick	72	CROSS HANDS
St. Ishmael's	72	CROSS HANDS
Solva	69	CROSS HANDS
Newport	69	CROSS HANDS
Fishguard North West	68	CROSS HANDS
Milford: Hakin	67	CROSS HANDS

% of population living closest to



-97%, decrease in population with closest A&E = Morriston
24% increase in population with closest A&E = Bronglais

DRIVETIMES - CUMULATIVE POPULATION COVERAGE



Mapping: Longest drives



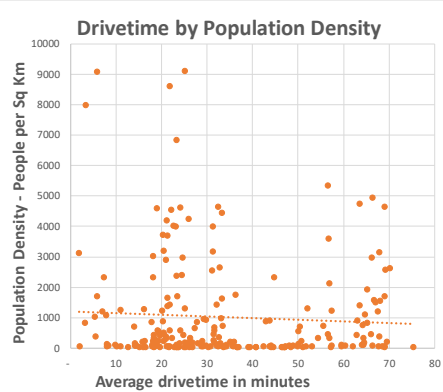
SITE OPTION – NEWCASTLE EMLYN

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	75 minutes	79 minutes
Within 30 minutes	51%	45%
Within 45 minutes	71%	67%
Within 60 minutes	84%	81%

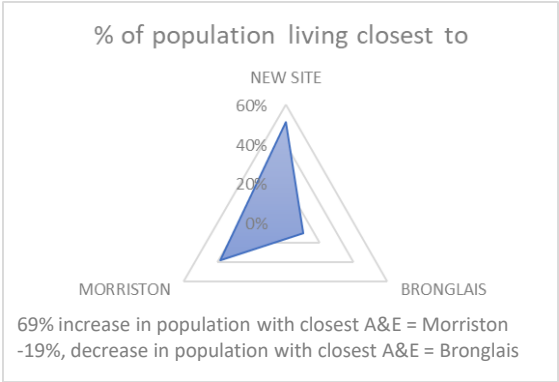
Population Density Plot



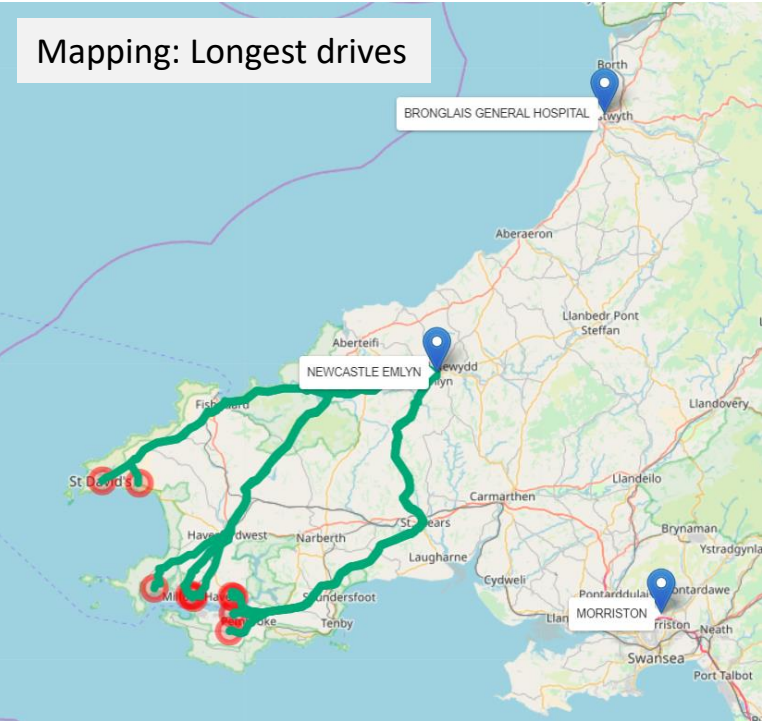
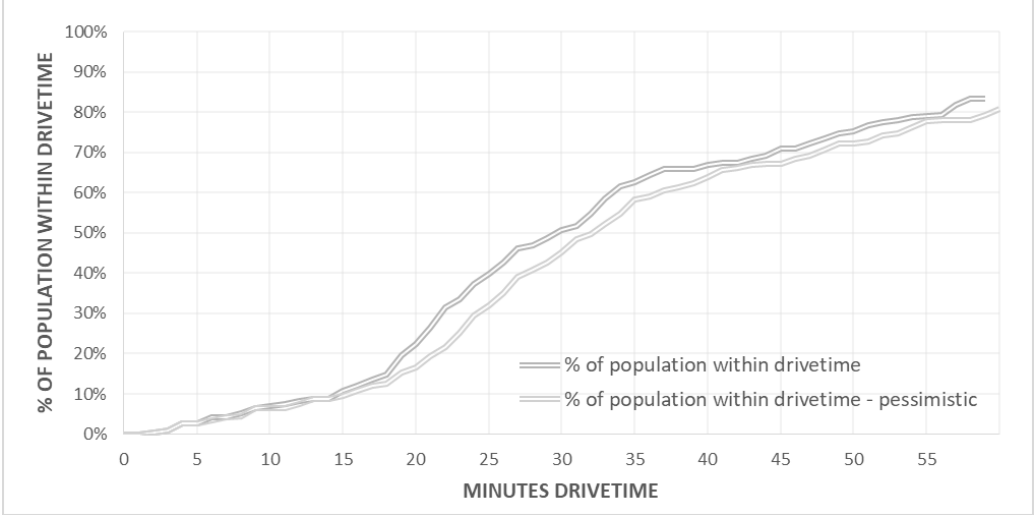
Large distance / density combinations include
Pembroke Dock, Milford, Haverfordwest

Longest Drives:

Ward Area	Drive (mins)	To nearest location of
St. Ishmael's	75	NEWCASTLE EMLYN
Milford: Hakin	70	NEWCASTLE EMLYN
Neyland: West	70	NEWCASTLE EMLYN
Milford: Hubberston	69	NEWCASTLE EMLYN
Milford: Hakin	69	NEWCASTLE EMLYN
St. David's	69	NEWCASTLE EMLYN
Neyland: East	69	NEWCASTLE EMLYN
Solva	68	NEWCASTLE EMLYN
Pembroke Dock: Pennar	68	NEWCASTLE EMLYN



DRIVETIMES - CUMULATIVE POPULATION COVERAGE



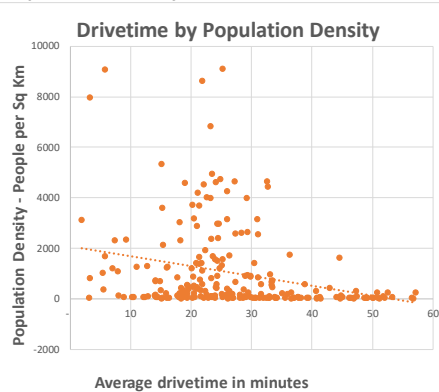
SITE OPTION – CANASTON BRIDGE

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	57 minutes	65 minutes
Within 30 minutes	69%	60%
Within 45 minutes	91%	88%
Within 60 minutes	100%	99%

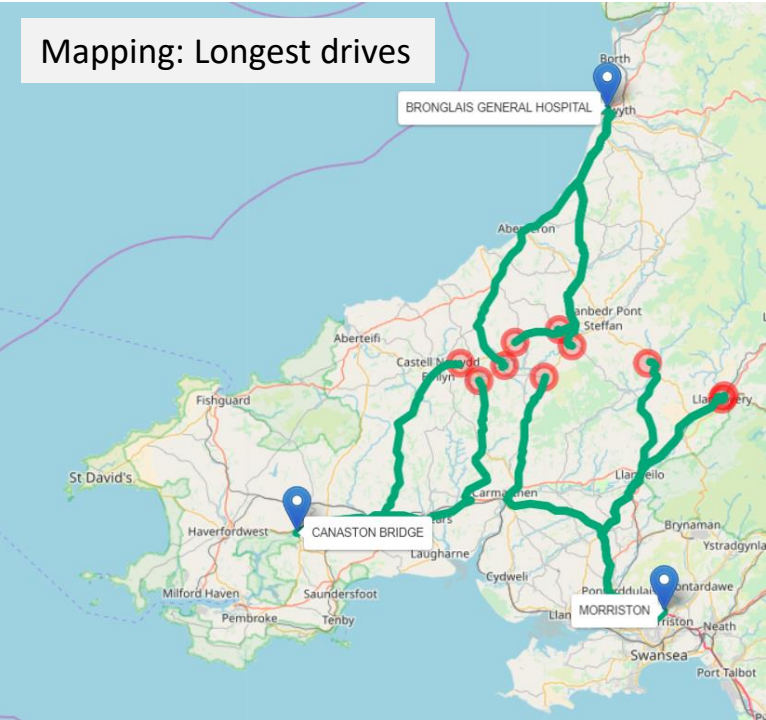
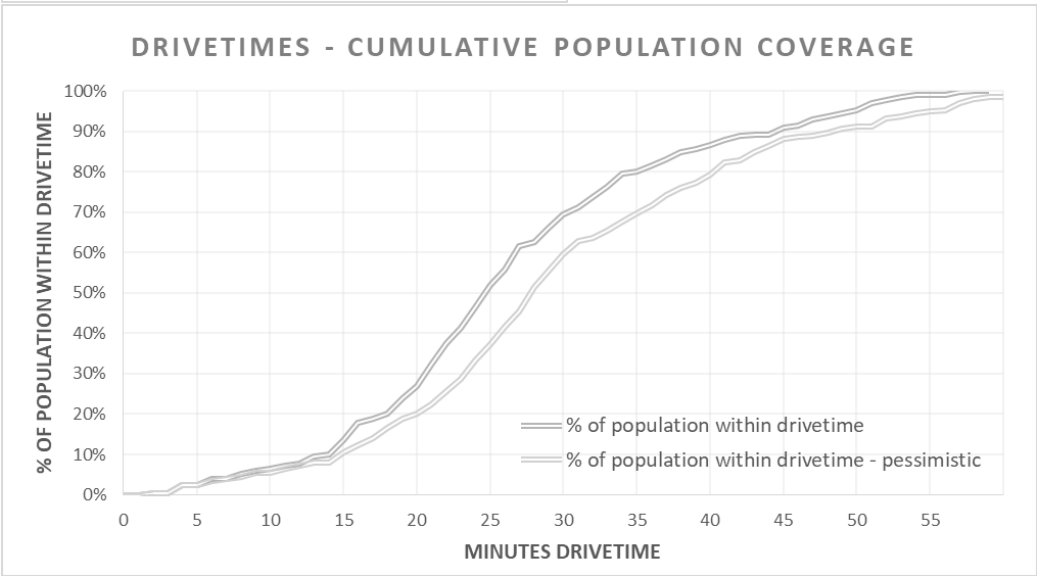
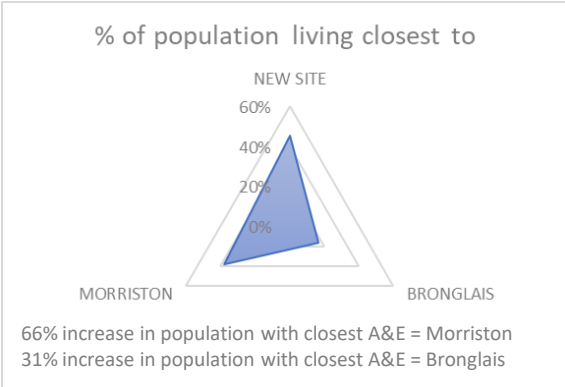
Population Density Plot



Large distance / density combinations include Tyisha, Bigyn

Longest Drives:

Ward Area	Drive (mins)	To nearest location of
Llandysul Town	57	BRONGLAIS GENERAL HOSPITAL
Cynwyl Gaeo	57	MORRISTON
Capel Dewi	57	BRONGLAIS GENERAL HOSPITAL
Llandyfriog	53	CANASTON BRIDGE
Llanybydder	53	BRONGLAIS GENERAL HOSPITAL
Llanfihangel-ar-Arth	52	MORRISTON
Llangeler	52	CANASTON BRIDGE
Llanwenog	51	BRONGLAIS GENERAL HOSPITAL
Llandovery	51	MORRISTON



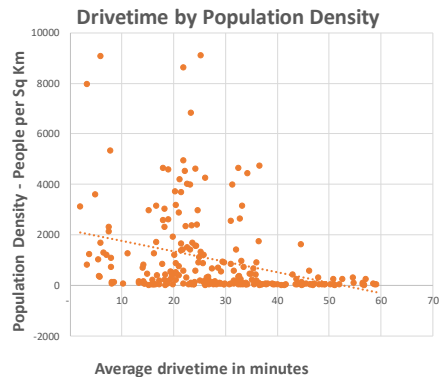
SITE OPTION – HAVERFORDWEST

The information below describes drivetime information associated with urgent and emergency travel times, including areas with furthest travel.

Key Statistics:

	Average Drivetime	Peak with pessimistic traffic conditions
Max drivetime	59 minutes	68 minutes
Within 30 minutes	63%	55%
Within 45 minutes	88%	83%
Within 60 minutes	100%	96%

Population Density Plot

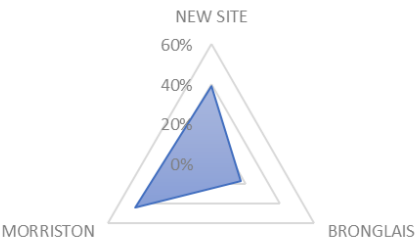


Large distance / density combinations include Tyisha, Bigyn, Tenby: South

Longest Drives:

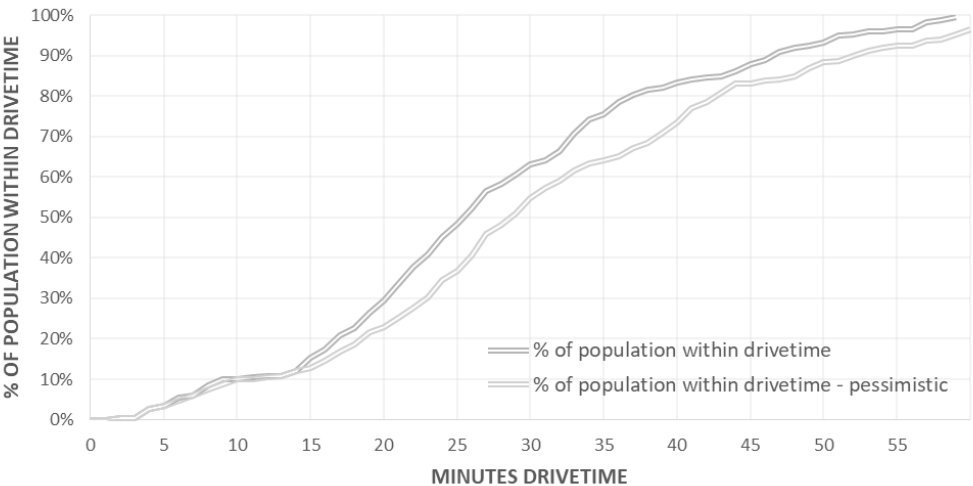
Ward Area	Drive (mins)	To nearest location of
Beulah	59	HAVERFORDWEST
Llangeler	59	MORRISTON
Llandyfriog	58	BRONGLAIS GENERAL HOSPITAL
Llandysul Town	57	BRONGLAIS GENERAL HOSPITAL
Cynwyl Gaeo	57	MORRISTON
Cenarth	57	HAVERFORDWEST
Capel Dewi	57	BRONGLAIS GENERAL HOSPITAL
Aberporth	55	HAVERFORDWEST
Aberporth	55	HAVERFORDWEST

% of population living closest to



93% increase in population with closest A&E = Morriston
35% increase in population with closest A&E = Bronglais

DRIVETIMES - CUMULATIVE POPULATION COVERAGE



Mapping: Longest drives

