making communications work
for everyone

Communications Market Report: Wales

Research Document

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Introduction

This is Ofcom's 11th annual review of the Communications Market Report for Wales. The report gives an overview of the nation's communications markets, examining availability, take-up and consumption of the internet, telecommunications, broadcasting and postal services, and comparing the findings with the other nations and the UK as a whole.

More people in Wales are embracing faster mobile internet connections, and four in ten adults (44%) have a 4G mobile service, a significant growth of 21 percentage points since 2015. This is now in line with the UK overall at 48%, whereas last year Wales was below the UK average. Faster mobile internet connections are also more widely available, with 4G coverage reaching 90% of premises in Wales.

More than eight in ten households (84%) in Wales now have access to the internet, with 77% having access to fixed broadband. The Superfast Cymru programme, which has already connected more than 582,000 properties in every part of Wales, has been extended to 2017. This is deploying an increasing number of fibre-to-the-premises (FTTP) connections to properties that are too far from the nearest cabinet to benefit from the standard fibre-to-the-cabinet (FTTC) solution. Many premises in the harder-to-reach parts of Wales which have previously had nothing will be able to get speeds of up to 300Mbit/s.

Tablet computer take-up has also grown, and internet users in Wales are now more likely than those in the UK to say that a tablet is their most important device for going online. However, like the UK as a whole, the smartphone is considered the most important device for going online, replacing the laptop as the most important device in Wales for the past two years. Even so, smartphone ownership has remained unchanged, and is now lower than in the UK overall.

People in Wales spend less time online (at an average of 17.8 hours per week) than any other nation. General surfing of the web and browsing (80%) and sending and receiving email (75%) are the most common online activities for internet users in Wales.

Despite this, sending items in the post continues to be important for adults in Wales, with almost nine in ten saying they send at least one item of post each month. However, people in Wales reported more problems with delayed, lost and damaged mail than did respondents in any of the other nations of the UK.

Television viewing is still popular in Wales. The proportion of households with smart TVs has doubled in the past year, and individuals in Wales spend more time than the UK average in front of their television screens (4 hours 10 minutes per day). Broadcasters' spend on non-news and non-current affairs programming for the people of Wales has increased more than for any other UK nation over five years; up by 14% since 2015 and by 28% since 2010. The television set is the main source of UK and world news for respondents in Wales (58%).

In this year's report, we have continued our analysis of adults in Wales who speak or write Welsh (either fluent or non-fluent), looking at their take-up of key communications services and devices. We have also updated research last carried out in 2014 (the Digital Day), looking at how people engage with communications and media services.

The Digital Day research shows that people in Wales typically spend more time using media or communicating than they do sleeping (at 8 hours 33 minutes each day). The biggest change compared to 2014 has been the rise in instant messaging; nearly half of all adults (49%) now use these apps on a weekly basis. More people in Wales are now viewing paid on-demand content and spending less time watching DVDs than in 2014.

Contents

Setting the scene

Key facts about Wales

Figure	Wales	UK
Population	3.099 million (mid-2015 estimate)	65.11 million (mid-2015 estimate)
Age profile	Population aged <16: 17.9% Population aged 65+: 20.2%	Population aged <16: 18.8% Population aged 65+: 17.8%
Population density	149.5 people per square kilometre	269 people per square kilometre
Language	24% of the population can speak Welsh	n/a
Unemployment	6.7% of economically active population, aged 16 and over	5.1% of economically active population, aged 16 and over
Income and expenditure	Weekly household income: £661 Weekly household expenditure: £445	Weekly household income: £747 Weekly household expenditure: £531.3

Source: Office for National Statistics: Population Estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2015; Office for National Statistics: Regional Labour Market, June 2016; Office for National Statistics: Family Spending 2015 edition; Annual labour market summary (16 or over) by Welsh local area and economic activity status June 2016; Welsh Language Use Survey 2013-15

A note on our Technology Tracker survey research

We conducted a face-to-face survey of 3,737 respondents aged 16+ in the UK, with 489 interviews conducted in Wales. Quotas were set and weighting applied to ensure that the sample was representative of the population of Wales in terms of age, gender, socio-economic group and geographic location. Technology Tracker data in this report are cited as from 2016, with the fieldwork taking place in January and February of this year.

Respondents were defined as urban if they lived in a settlement with a population of 2000 or more and rural if they lived in areas with smaller populations. The survey sample in Wales has error margins of approximately +/- 3-6% at the 95% confidence level. In urban and rural areas, survey error margins are approximately +/- 4-7%.

In addition to the survey data, this report refers to information from a range of other sources, including data provided to Ofcom by stakeholders. Tables summarising the data collected in our survey are published on Ofcom's website.

The information set out in this report does not represent any proposal or conclusion by Ofcom in respect of the current or future definition of markets. Nor does it represent any proposal or conclusion about the assessment of significant market power for the purpose of the Communications Act 2003, the Competition Act 1998 or any other relevant legislation.

The full dataset and charts are available in a searchable resource, which can be found at http://www.ofcom.org.uk/cmrwales. Companion reports for the UK and each of the nations can be found at www.ofcom.org.uk/cmr.

1 Wales's communications market

1.1 Wales: fast facts

Figure 1.1 Fast facts for Wales

Nations' fast facts: H1 2016 (%) – unless otherwise stated, figures relate to household take-up

	UK	England	Scotland	Wales	Northern Ireland	UK urban	UK rural	Wales urban	Wales rural
Digital TV take-up	96	96	98	97	98	96	97	97	96
Pay digital TV	61	59	69 + +11	68 +	71 + +8	62 + +3	54 -	70	62
Freeview-only TV	29	30	25 -10	22 -	23 -	28 -	35 +	20	27
Smart TV take-up (among TV homes)	28 +7	29 +8	21 -	33 +16	18 -	27 +7	32 +9	36 + +20	23 -
HDTV service (among those with an HDTV)	79 +4	79 +4	79	77 +8	80	80 +6	75	78 +11	74
DAB ownership (among radio listeners)[1]	50 +7	52 +8	36 -	50	25 -	49 +7	53	52	43
Catch-up TV/ film viewing online/ on-demand (via any device, among those who use the internet)	58	59	60	59	44 -	58	60	61 +	49 -
Total internet access at home (via any device)	86	87	84	84	83	86	87	84	82
Broadband take-up (at home)	81	81	79	79	78 +6	80 -	85 +	80	77
Use mobile to access internet	66 +5	66 +4	63	61	69 +9	66 + +4	61 -	63 +	53 -
Mobile phone take-up (personal use)	93	94	91	91	92	93	94	90	94
Smartphone take-up (personal use)	71 +5	71 +4	70	65 -	72 +9	71 +4	68 +9	67	59
4G service take-up (among smartphone owners)	67 +22	68 +23	57 -	68 +32	77 + +37	69 + +23	55 – +20	72 + +34	49 – +21
Fixed landline take-up	86 +2	86	86	85	86	85 -	92 +	85	84
Desktop PC take-up	31 -3	32 -5	23 -	33	17 – -11	30 – -4	36 +	32	36
Laptop take-up	64	65	60	61	56 -	64	64	60	62
Tablet computer take-up	59 +5	59 +5	56	67 +	60	58 – +4	64 + +9	69 +	59 -
E-reader take-up (personal use)	18	19	15	22	15	18 -	25 +	23	19

	UK	England	Scotland	Wales	Northern Ireland	UK urban	UK rural	Wales urban	Wales rural
Households taking bundles	68 +5	68 +4	69 +8	67	64	67 +4	72	68	64
Fixed telephony availability	100	100	100	100	100				
Fixed broadband availability[2]	99.98	100	99.86	100	100				
LLU ADSL broadband availability[3]	95	96	90	93	90				
2G mobile availability[4]	99.6	99.7	99.1	98.4	98.8				
3G mobile availability[5]	99.6	99.8	97.9	98.6	99.4				
4G mobile availability[6]	97.8	98.8	92.0	90.1	99.3				
DTT availability[7]	98.5	98.6	98.7	97.8	97.4				
TV consumption (minutes per day)[8]	216	219 **	240	250	225				
Radio consumption (minutes per day)	183	183	181	190	173				

Key: +Figure is significantly higher for nation than UK average or significantly higher for nation's urban/ rural than for nation's rural/ urban; -Figure is significantly lower for nation than UK average or significantly lower for nation's urban/ rural than for nation's rural/ urban; +xx Figures have risen significantly by xx percentage points since H1 2015; +xx Figures have decreased significantly by xx percentage points since H1 2015;
Source: Ofcom Technology Tracker H1 2016, BARB, RAJAR, industry data
Base: All adults aged 16+ (n = 3737 UK, 2239 England, 502 Scotland, 507 Northern Ireland, 489 Wales, 2711 UK urban, 1026 UK rural, 1958 England urban, 281 England rural, 251 Scotland urban, 251 Scotland rural, 240 Wales urban, 249 Wales rural, 262 Northern Ireland urban, 245 Northern Ireland rural)

1. DAB ownership in the nations and UK as reported here is sourced from Ofcom research. The UK CMR uses RAJAR data for DAB ownership
2. Proportion of premises connected to an ADSL-enabled BT local exchange based on BT data, December 2015
3. Proportion of premises connected to an LLU-enabled BT local exchange based on BT data, December 2015
4. Proportion of premises with outdoor 2G mobile coverage from at least one operator, May 2016
5. Proportion of premises with outdoor 3G mobile coverage from at least one operator, May 2016
6. Proportion of premises with outdoor 4G mobile coverage from at least one operator, May 2016
7. Estimated proportion of homes that can receive the PSB channels via DTT (3PSB Mux coverage). Joint TV planning project (Arqiva, BBC, Ofcom).
*8. Based on calendar year 2015. **This figure reflects the average across the English regions with the highest in Border (243) and the lowest in London (197) respectively.*

1.2 The Digital Day in Wales

Summary

Media and communications are a key part of our daily lives and we spend more time using them than we do sleeping. The amount of time that we spend using media and communications overall has changed little since 2014, but there have been some changes in the respective amounts of time that people in Wales are devoting to different services.

People in Wales are spending less time watching live TV; it's likely that they're substituting this with watching paid on-demand content, as time spent on this has grown by almost the same amount.

However, watching live TV still takes the lion's share of our time with media and communications. And watching TV[1] is a core part of our evening: between 8pm and 10pm each day, around nine in ten adults in Wales are watching a TV set. Traditional audio is also doing well in Wales – time spent listening to the radio has grown, while time spent with streamed music online (such as Spotify or Apple music) has fallen.

When it comes to communicating, instant messaging has grown in popularity since 2014 both in the proportion of people using instant messaging, and the amount of time spent on the services. While the proportion of people using social networks has remained stable, the amount of time spent on these services has declined.

Despite the growth in use of non-traditional means of communicating, phone calls are seen as the most important communication activity.

Background and methodology

This section provides an overview of the core results from our 2016 Digital Day study, drawing comparisons with data from when the study was last conducted in 2014. Further data are also available to access online via the dedicated website http://stakeholders.ofcom.org.uk/market-data-research/other/cross-media/digital-day/2016/

Although Ofcom makes use of a wide range of industry research to understand how people consume broadcast media and online content, there is little current insight into how people use all media and communications services and devices together, and how they form a central part of a consumer's day.

In Q1 2016, we conducted an in-depth quantitative diary study on UK adults' and children's[2] total media and communications activities to provide an overview of the role of media and communications in people's lives. The study was last conducted two years earlier, in 2014, so one of the primary aims was to gauge how things had changed since then. The study was therefore designed to remain as consistent as possible in terms of methodology (with some necessary tweaks and improvements).

The research provides a snapshot of media and communications behaviour over a seven-day period, exploring when and how people use services and devices throughout the day, covering both personal and business use, in- and out-of-home use.

A comprehensive description of the methodology is available in the technical appendix. This includes all questionnaire material, sample information and analysis definitions - http://stakeholders.ofcom.org.uk/binaries/research/cross-media/2016/technical_appendix.pdf.

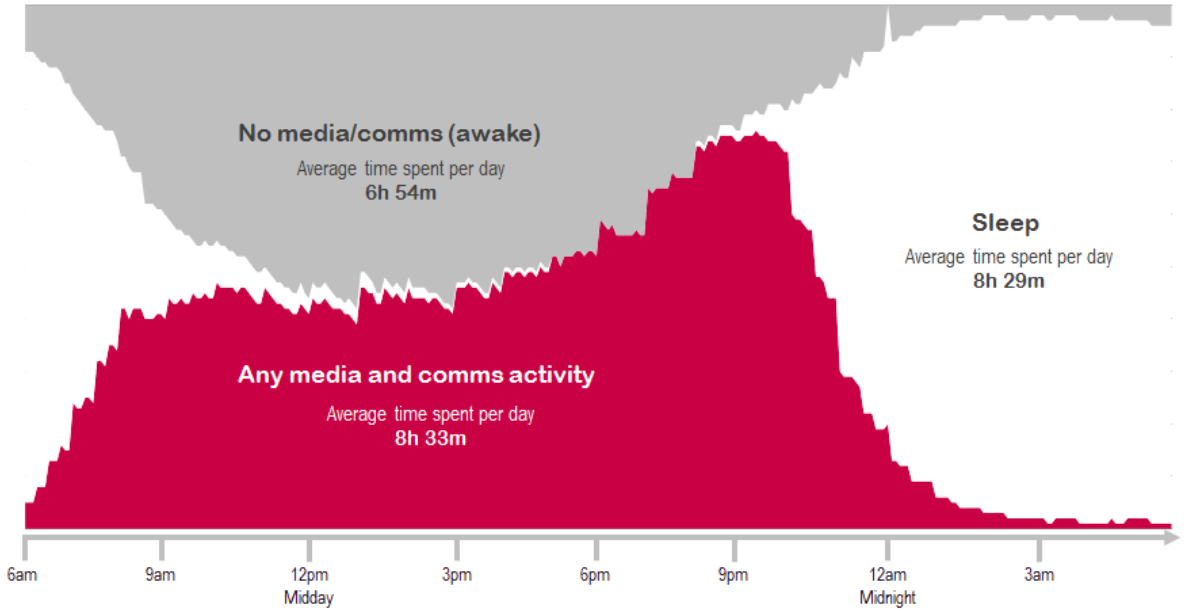
[1] Watching TV includes, watching TV and films via live TV, recorded TV ,on-demand TV (paid or free) and DVD/Blu-ray

[2] *Within this report we focus on the data from the adults' diaries only.*

Typically, adults in Wales spend more time using media or communicating than they do sleeping

Adults in Wales spend the majority of their waking hours engaged in media and/or communications activity (8h 33m). The actual time spent on media and communications per day is relatively consistent across the UK nations.

Figure 1.2 Media and communications vs. non-media and comms activity, by time of day



Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

Through multi-tasking, adults in Wales squeeze 10h 24m of media and communications activity into 8h 33m on a typical day

People consume media in different ways, either focusing solely on the task in hand (categorised as solus activity), or doing two or more things at once, such as watching television and communicating with friends over instant messenger (media multi-tasking). Our research showed that thanks to multitasking, adults in Wales typically squeeze 10 hours 24 minutes' worth of total media activity into 8 hours 33 minutes of actual time. Since 2014, this picture has changed among adults in Wales, as there has been a decrease in both the total time spent on media and communications, and the actual time spent in a typical day on media and communications. Adults in Wales spend the least amount of total time on media and communications out of all the nations.

Figure 1.3 Average daily media and communications time, by nation

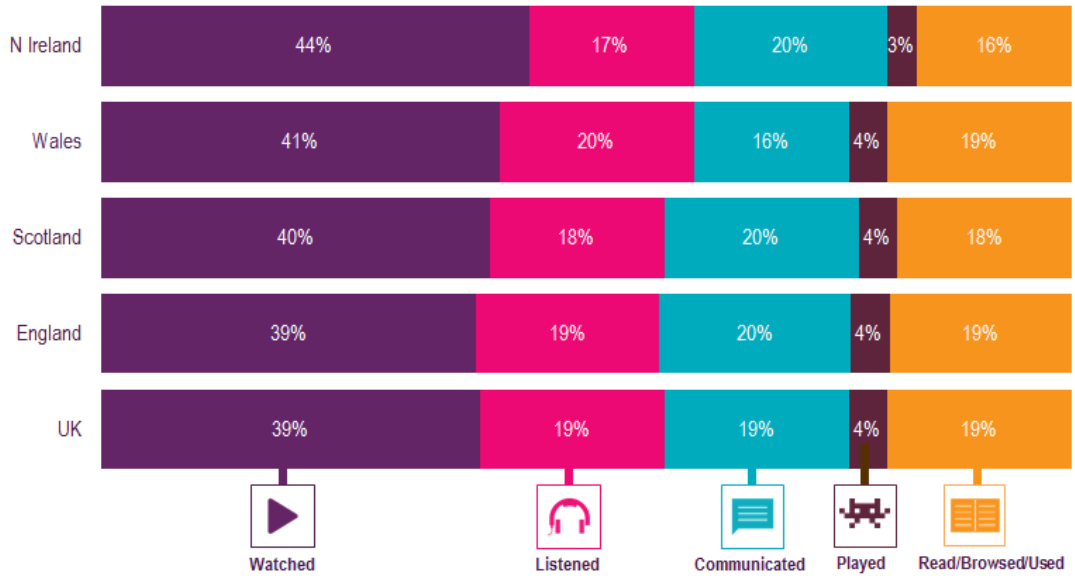
Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in UK (1512), England (991), Scotland (190), Wales (176), N. Ireland (155)

Among adults in Wales, two-fifths of total media and communications time is spent watching content

Watching content, such as TV programmes, films or short video clips, accounts for 41% of the total time spent on media and communications by adults in Wales. This consists predominantly of live TV, which makes up 26% of the total media and communications time.

The proportions of time spent on the five broad activity types (watching, listening, communication, playing and reading/ browsing/ using) is consistent across the nations, and there have been no significant changes since 2014.

Figure 1.4 Proportion of time attributed to activity types, by nation



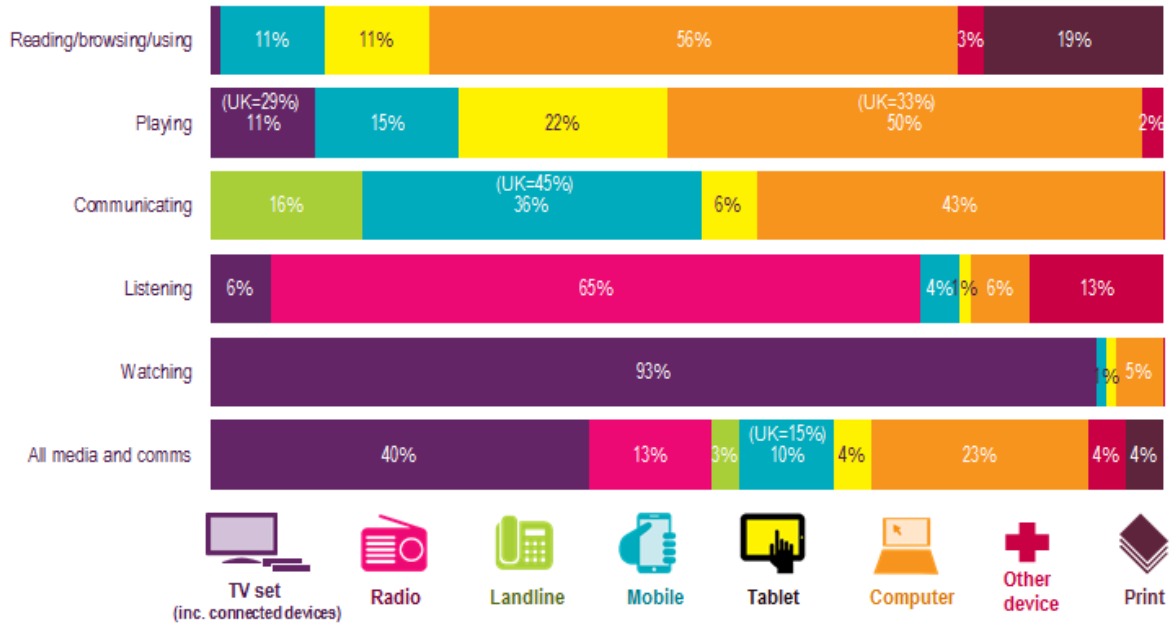
Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in UK (1512), England (991), Scotland (190), Wales (176), N. Ireland (155)

Adults in Wales spend a lower proportion of time communicating using their mobile than the UK as a whole

Adults in Wales spend proportionally more time watching TV than using any other device; this is consistent across the nations. Their communication time is primarily spent on mobile phones and computers, with the latter device also being used for reading/ browsing/ using.

When we break activity type down by device used, we can see that for communications activities, adults in Wales are using a mobile less than the UK as a whole. When we look at playing video games, compared to the UK as a whole, adults in Wales are less likely to use a TV set (including through a connected games console) and more likely to use a computer.

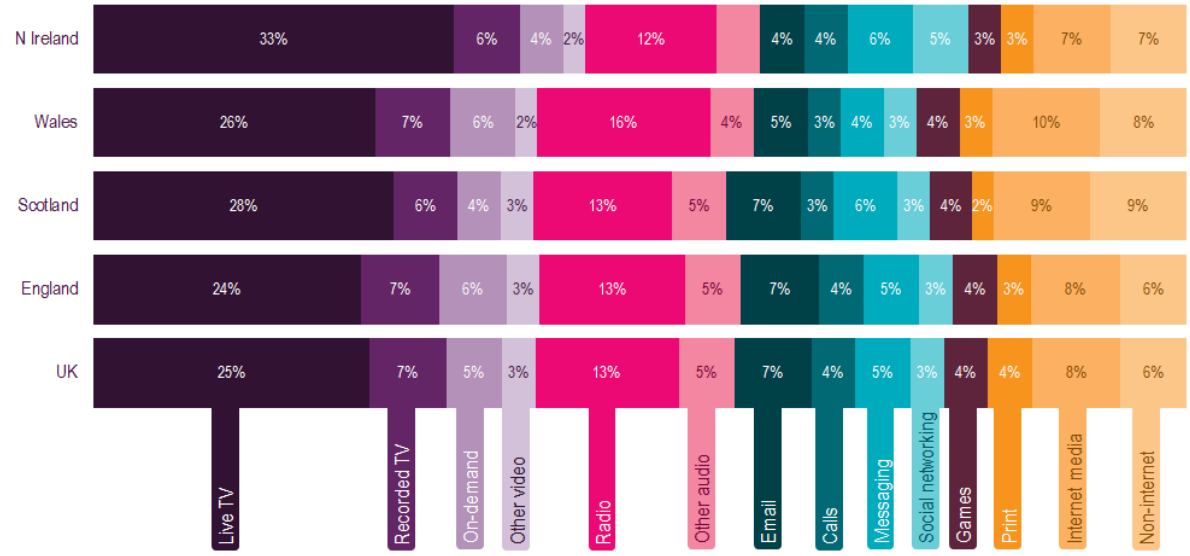
Figure 1.5 Proportion of time attributed to devices, by activity type



Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

The proportion of total media and communications time spent on certain activities among adults in Wales is in line with the UK as a whole; a quarter (26%) of media and communications time is spent watching live TV and 16% listening to the radio.

Figure 1.6 Proportion of time attributed to grouped activities, by nation

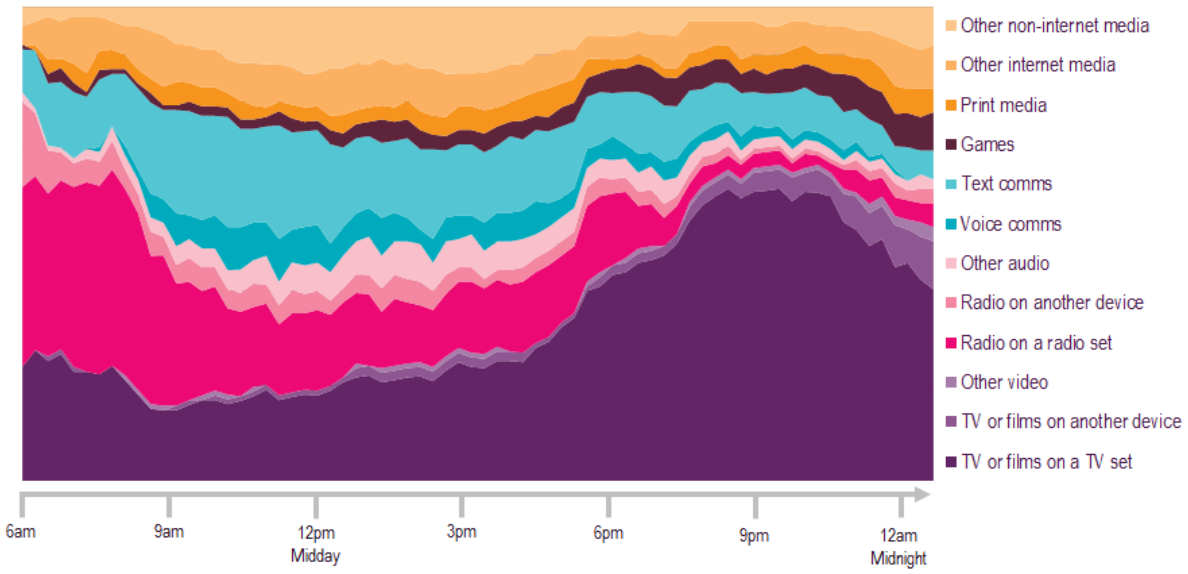


Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in UK (1512), England (991), Scotland (190), Wales (176), N. Ireland (155)

Watching TV on a TV set is the most popular activity in the evening

Looking at the proportion of all media and communications activity participated in, by time of day (across a week), among all adults in Wales, watching TV on a TV set dominates in the evening: it takes up around 60% of activity between 9:15 and 10pm, in line with the share for the same time period in 2014 and in line with the UK average. Viewing live TV accounts for 64% of time spent on all 'watching' activities.

Figure 1.7 Proportion of media and communications, by time of day



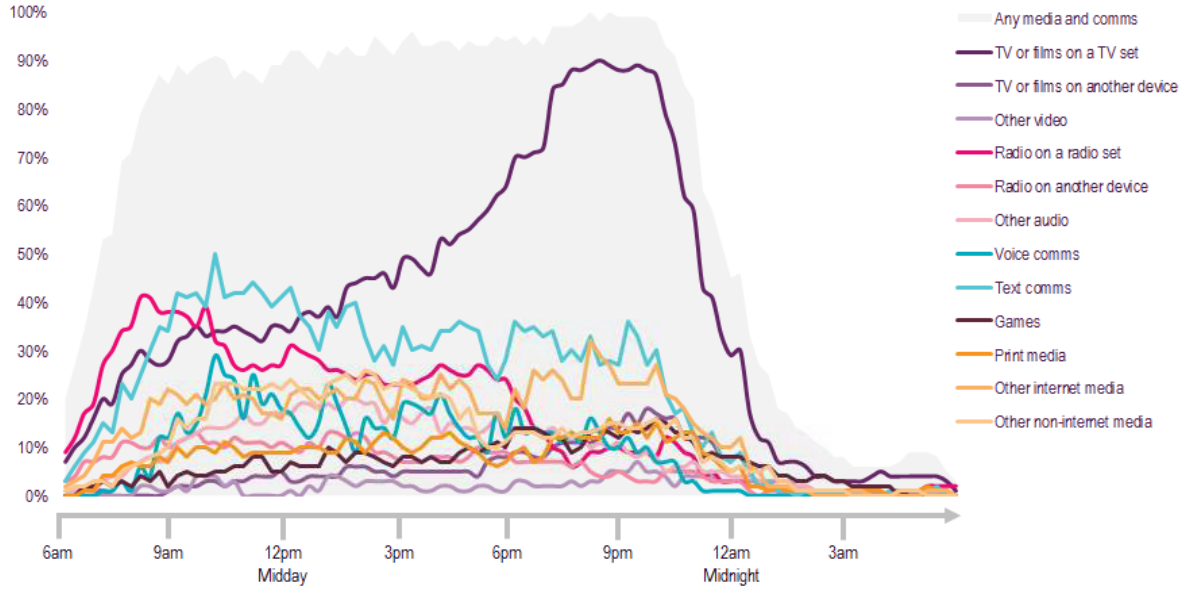
Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

Radio listening on a radio set has a higher peak reach in Wales than in other nations

The dominance of TV in the evening period is also reflected in terms of reach across the day. Around nine in ten adults in Wales watch TV or films on a TV set between 8pm and

10pm at any point in the week. This compares to a peak of 50% for text communications, which is higher than TV from 8.15am to midday, but increasingly lower in comparison thereafter. Radio listening on a radio set has a higher peak reach in Wales than in any other nation, at 41% between 8:15 and 8:30am, and a higher reach than TV until 9:30am.

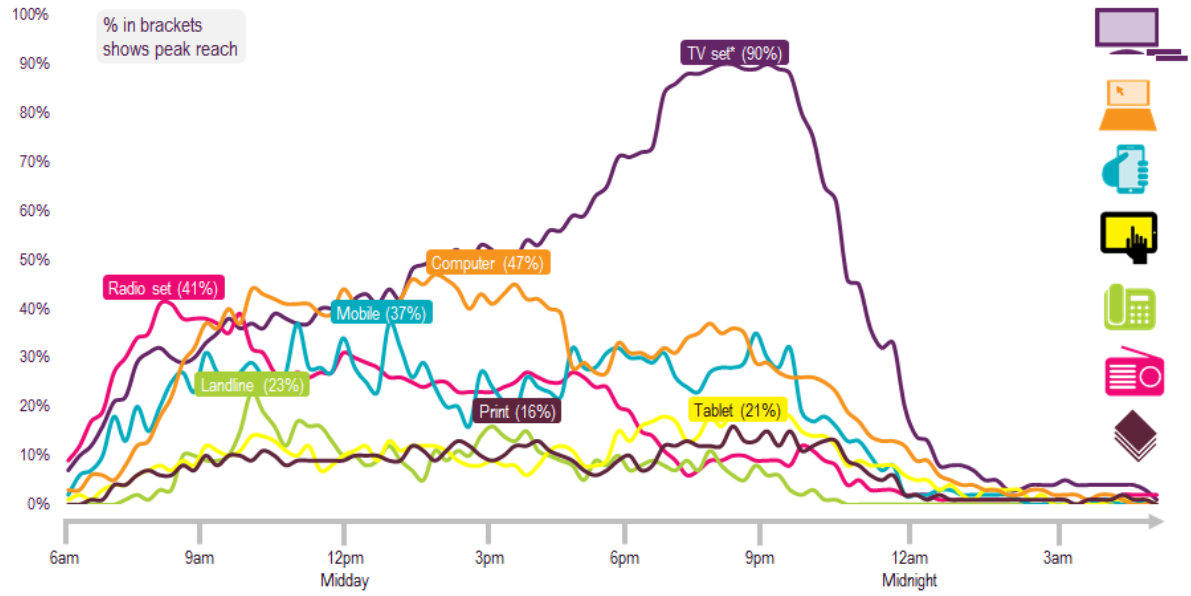
Figure 1.8 Weekly reach of grouped activities, by time of day



Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

The patterns shown above for TV and radio content across the day are clearly mirrored by the primary associated devices, i.e. the TV and radio set. Radio set use during the early morning is comparatively higher in Wales than in the other nations.

Figure 1.9 Weekly reach of devices, by time of day



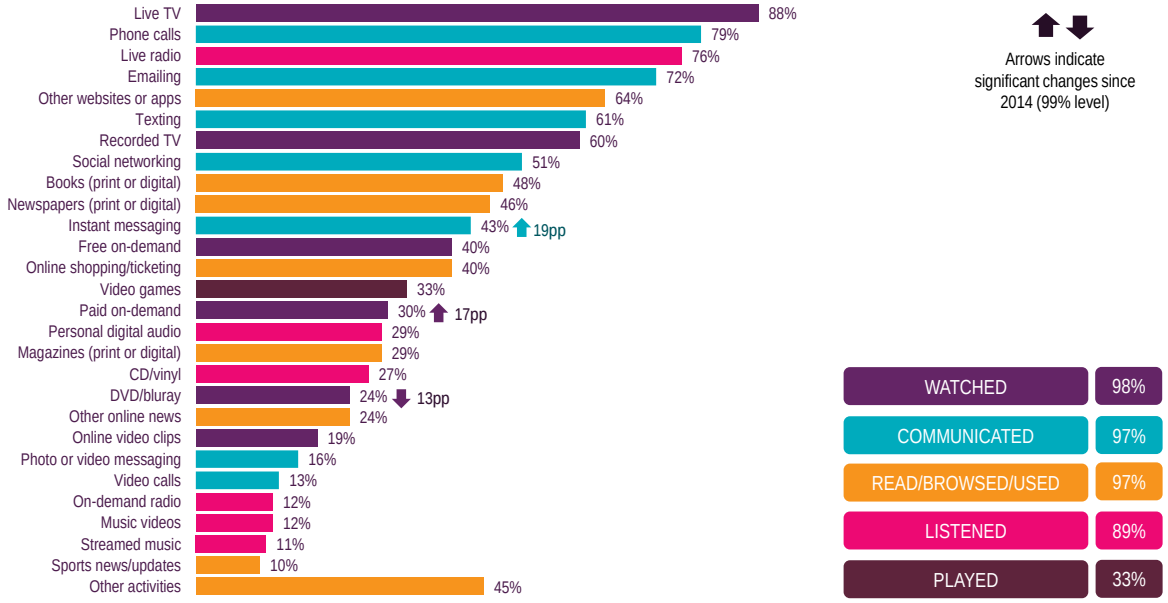
Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

Since 2014, watching paid on-demand video has increased

Figure 1.10 shows the proportion of adults who did each activity at least once during their diary week. Almost nine in ten (88%) watched any live TV during the week, and this was the most popular activity, ahead of phone calls (79%).

In line with the other nations, instant messaging was the activity that showed the highest increase since 2014, up 19 percentage points from 24% to 43% of adults in Wales using instant messaging. There have also been significant increases in viewing paid on-demand content (to 30% from 13%), whereas DVD/ Blu-ray viewing has decreased by 13 percentage points to 24%.

Figure 1.10 Weekly reach of media and communications activities



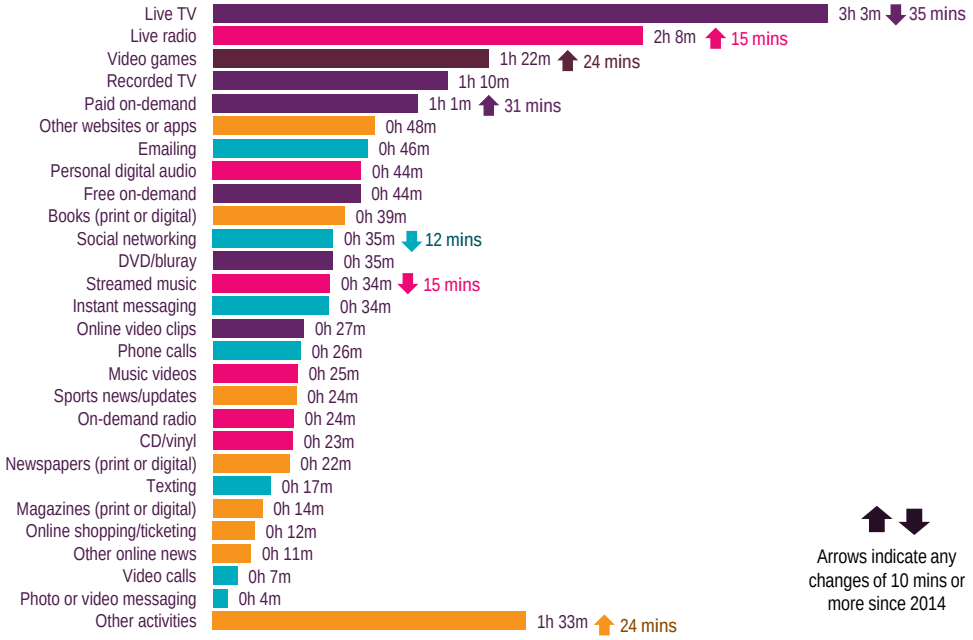
Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

The average actual time spent watching live TV has decreased by 35 minutes, while watching paid on-demand TV has increased by 31 minutes

Among people who watched any live TV, the average duration of this activity per day is down by 35 minutes since 2014, although the number of people watching live TV has remained the same. And watching content is still a popular activity. While the time spent with live TV has fallen, the average time spent watching paid on-demand content has increased by 31 minutes.

Two further activities show an increase of ten minutes or more since 2014; listening to live radio (up by 15 minutes) and playing video games (up by 24 minutes). In addition to live TV, two other activities are lower since 2014: social networking (down by 12 minutes) and listening to streamed music (down by 15 minutes). Despite time spent on these activities falling, the proportion of people who still do them has remained the same.

Figure 1.11 Average time spent on activities per day



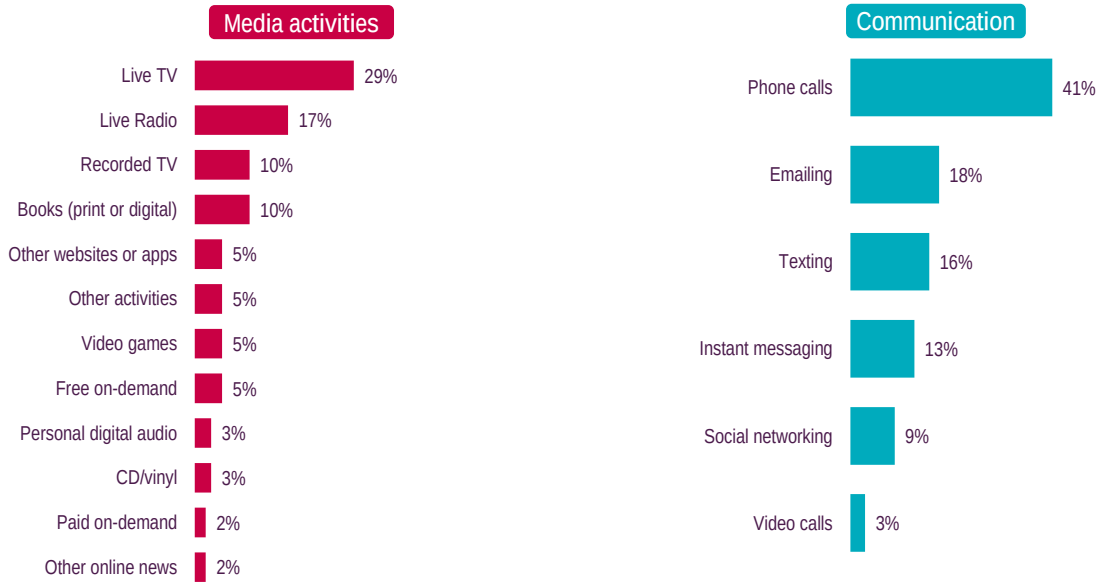
Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

Phone calls are seen as the most important communication activity

Respondents who completed the diary were asked which media activity, and which communications method, were most important to them personally.

Three in ten adults in Wales said that live TV was their most important media activity, while around two-fifths cited phone calls as their most important communications method; both of these are in line with the UK average (27% and 39% respectively).

Figure 1.12 Media and communications activities cited as most important



Source: Ofcom Digital Day 2016
Base: Adults aged 16+ in Wales (176)

1.3 Coping in a connected society

Summary

As we've seen in the Digital Day research in section 1.2 for people in Wales, media and communications are a key part of our daily lives, and more time is spent doing these activities than sleeping. With an increase in fixed broadband take-up from 63% to 75% of households between 2014 and 2016, and a 9pp increase between 2014 and 2016 (up to 61%) in the proportion of people who can access the internet on a mobile phone, people in Wales increasingly have the connections and devices they need to get online.

Ofcom commissioned research to investigate how people feel about being connected and what they see as the benefits and disadvantages. The internet is broadening people's horizons and making communications with friends and family easier. But using connected devices, like smartphones or tablets, can get in the way of face-to-face interactions – almost two-thirds of people in Wales have felt ignored because the person they were with was using a device. There is a risk of collisions too – half the people in Wales have had someone bump into them because the other person was engrossed in their phone.

People don't want to put their devices down, and three in ten agree that they spend too much time online, although the number of people in Wales agreeing with this is lower than for the UK as a whole.

Half of the people in Wales see themselves as 'hooked' on their connected device, and one in five feels nervous without their mobile. A minority (one in ten) say they feel nervous or anxious when they are offline. However, compared to the UK as a whole, adults in Wales are less likely to be tied to their device or feel guilty about the amount of time they spend online. Some people in Wales have given themselves a 'digital detox'; almost three in ten (28%) had abstained completely from the internet for some time because they thought they'd been using it too much.

People in Wales are embracing the online world

Connectivity is broadening people's horizons; three-quarters of internet users[3] (75%) agree that being online enables them to do things that they could not do otherwise. Just over half of internet users (52%) agree that they would know a lot less about the world (or their local area) if they did not have access to the internet.

People in Wales are making the most of the benefits of being online; eight in ten internet users (80%) agree that new communications services have made life easier.

As well as people making more use of being online, they are also becoming more used to being online. If they couldn't access the internet, almost half the internet users in Wales would feel they were missing out, and around a third wouldn't know where to find information if they couldn't get online.

But not everyone feels the same about the time they spend online

The relationship people in Wales have with the internet is not all plain surfing. Many recognise some of the more negative impacts it can have on their work and home lives.

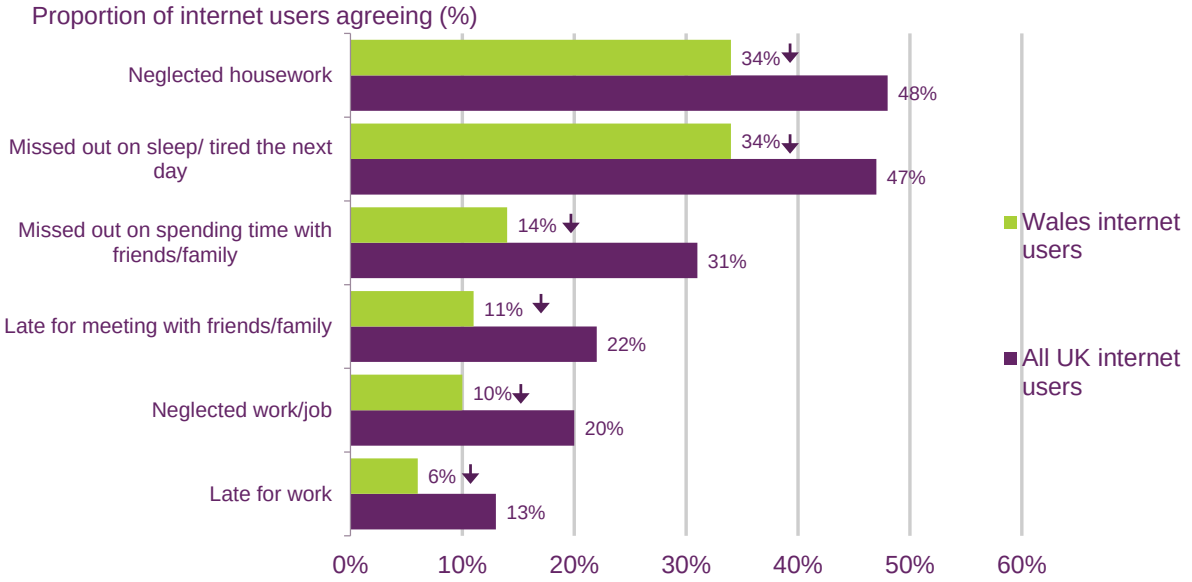
While these new opportunities are empowering, and a third agreed that being online enables them to work more flexibly, one in seven (16%) agreed that constant connectivity makes

[3] Internet users are defined as those who have been online within the last month

them feel as though they are always at work. And one in ten people feel guilty about the amount of time they spent online, even though two in five (39%) internet users in Wales admit to spending longer than they planned on browsing the internet, and just under a third (30%) admit to spending longer than they planned on social media. When people in Wales do spend more time than intended online, it is housework and sleeping that are most likely to be neglected.

For people in Wales, the negative effects of being online were felt to a lesser extent than across the UK as a whole; more people in Wales said they had *never* been affected by any negative effects of being online (52% in Wales vs. 37% in the UK as a whole). In line with this, thirty percent agree that they spend too much time online, but this is less prevalent among people in Wales than among the UK as a whole.

Figure 1.13 Negative effects caused by too much time online



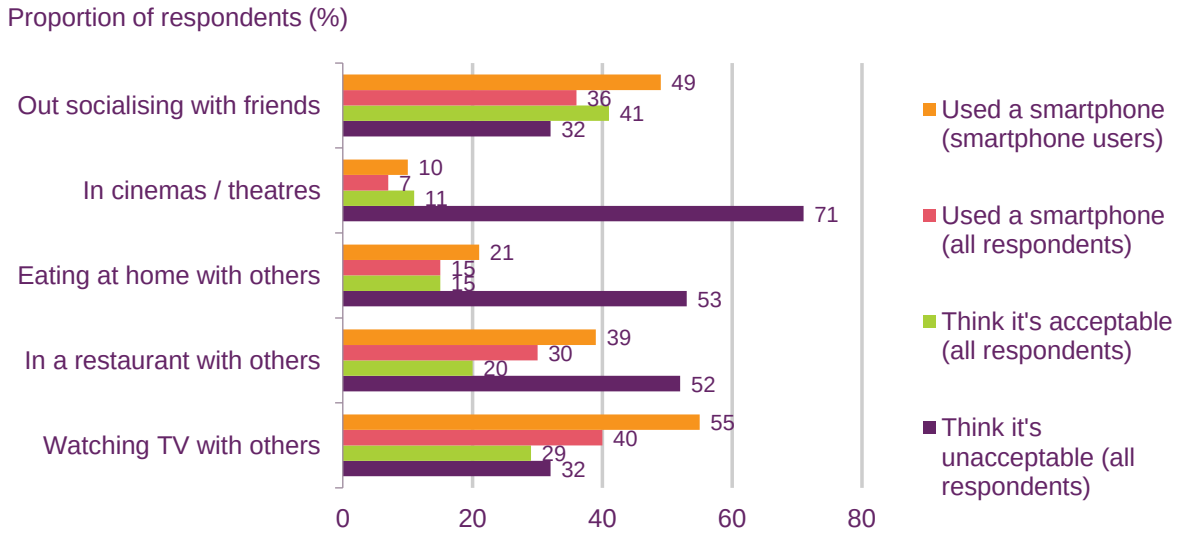
Source: Ofcom research, 2016
Base: All going online at least once a month (All: 1861, Wales: 110)
Q.D7 Have any of these parts of your work or personal life ever been negatively affected by spending too much time online?
Arrows represent significant increase or decrease compared to all UK internet users

Although using smartphones is disruptive to conversation, people still do it

While the internet has, for many, revolutionised communication, almost two-fifths felt that the internet interrupts face-to-face conversations with friends and family and, just over one in ten had either missed out on spending time with, or been late for meeting friends and family because they were on the internet.

People in Wales were equally as likely to keep in touch with friends via text messages as they were to meet them face-to-face. And, although two-fifths of people in Wales say that their devices are interrupting face-to-face conversations, they are still willing to use their smartphone while in company; three quarters (76%) of smartphone users admitted to using their smartphone in at least one social situation. Whether they are watching television with friends, in a restaurant with other people, or having dinner at home, people use their devices and, as shown in Figure 1.14, some even use their smartphone at the cinema or theatre.

Figure 1.14 Use and acceptability of using a smartphone with others in different situations



Source: Ofcom research 2016
Base: All respondents in Wales (119), smartphone users in Wales (82)
Q: For each of the following situations, please indicate if you have personally used and/or have been with others when they have used a smartphone or tablet on each occasion? And for each occasion, could you indicate the extent to which you think using a smartphone at this time is acceptable?

Almost two-thirds of people in Wales feel ignored because other people are always on their devices

Considering the widespread use of devices, and sometimes even while in the company of others, it is no surprise that people in Wales report feeling ignored. Almost two-thirds (63%) of people in Wales said they had felt ignored by a friend or relative because the other person was busy using their phone or tablet. Almost a third (31%) said they experienced this at least once a week and one in ten (10%) felt like this daily.

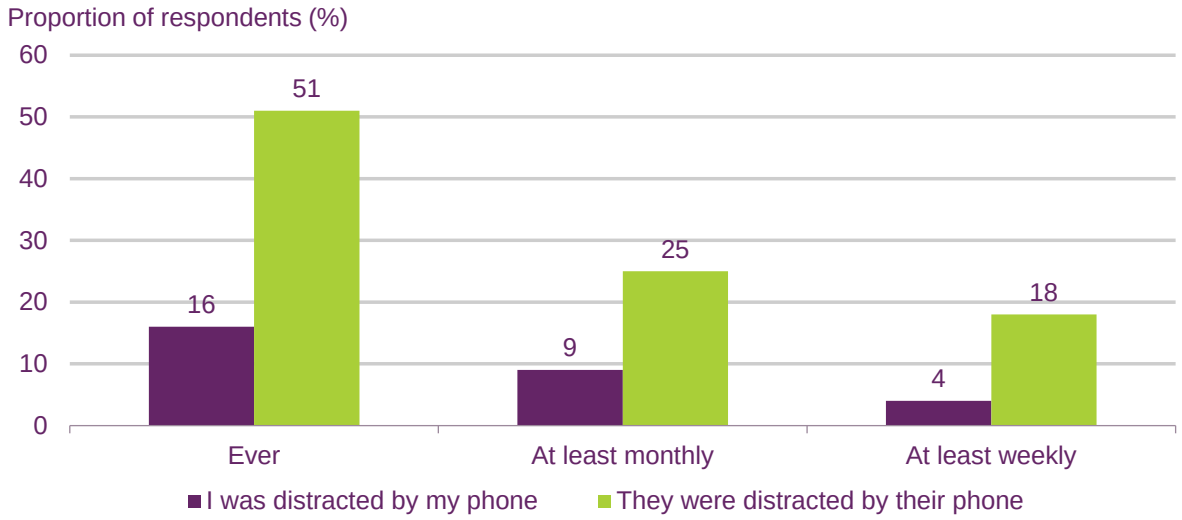
Some people use their devices to communicate with people while they are in the same place as them. A quarter of people in Wales had done this; at home, or at a friend's house are the places where people are most likely to communicate electronically with others while they are physically together.

Some people just can't put their devices down, and it's housework and sleeping that suffer…

This might be because some people feel that they just can't leave their devices alone. Around half (46%) of people in Wales see themselves as 'hooked to' their device, a lower proportion than the UK as whole (59%). One in ten agree that they would feel anxious when not connected, although a much larger proportion (four in five) disagree - a higher proportion than in the UK as a whole.

Another effect of people not being able to put their devices down is the risk of bumping into people and objects. Half of the people in Wales have been bumped into in the street because another pedestrian was engrossed in their phone or tablet. However, only one in six admitted that they had bumped into someone or something themselves while they were focused on their device.

Figure 1.15 Distracted by a phone: bumpers, bumpees and the frequency of collision



Source: Ofcom research 2016
Base: All respondents in Wales (110)

…although some people have tried to disconnect for a while

In a bid to strike a healthier tech-life balance, some people in Wales have chosen to give themselves a 'digital detox' i.e. purposefully disconnecting and going without the internet for a period of time. Almost three in ten (28%) had self-imposed some time away from the internet because they thought they were using it too much. Their feelings during the period without the internet were more positive than negative; they felt more liberated and less distracted. None of them said that they had found the experience stressful, or that it made them anxious or worried about not being able to keep in touch with friends and family. When asked whether they could cope with a digital detox, almost two-thirds (62%) felt that they would be able to cope, with only one in five (19%) thinking that they couldn't cope.

In addition, a majority (87%) had made a conscious effort to reduce the time they spent online. Just over a fifth had reduced the time they spent on social media (22%), with one in twenty (5%) suspending a social media account altogether. To regulate their use of technology, almost two-thirds (63%) of people in Wales have imposed one or more rules on themselves around their use of technology, and three-quarters (74%) of parents had imposed rule/s on their children to limit their time online.

1.4 Take-up of key communications services and devices among those who can speak or write Welsh

Introduction

Using data from Ofcom's Technology Tracker survey (January-February 2016), we have undertaken some analysis of adults in Wales who are able to speak or write Welsh (fluent or non-fluent), looking at their take-up of key communications services and devices.

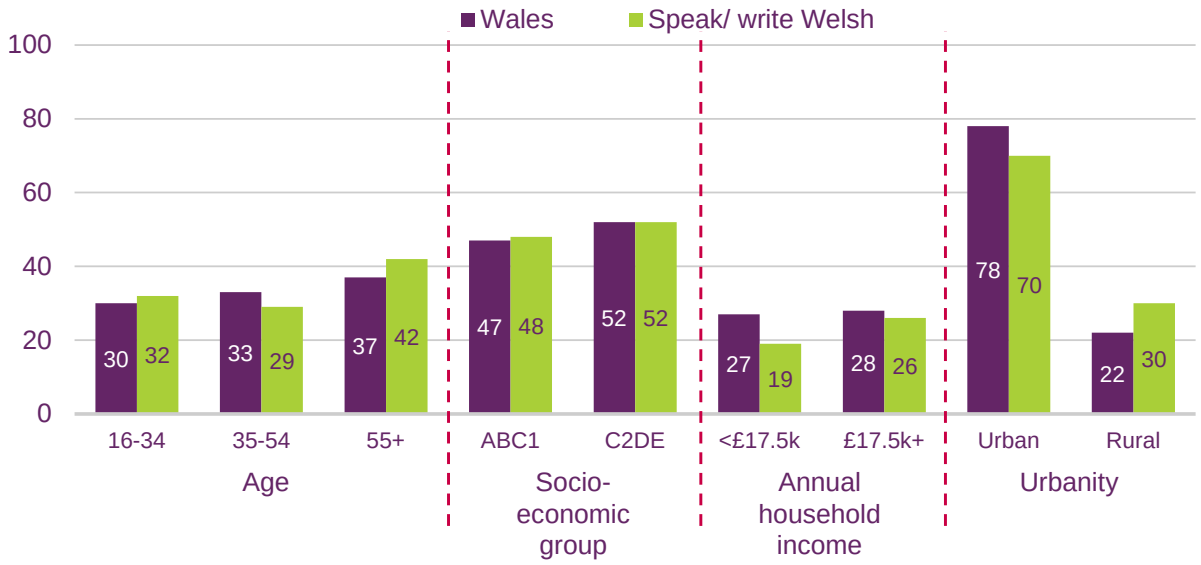
Figure 1.16 shows the demographic profile of those who can speak or write Welsh, and compares them to the Welsh sample as a whole. Figure 1.17 shows take-up of key communications services and devices among adults in this sub-group.

A note on survey research

Please note that due to low base sizes, all findings are indicative and should therefore be treated with caution. The Technology Tracker sample in Wales was designed to be representative of the population of Wales as a whole, and is not therefore representative of those who speak and/or write Welsh.

In 2016, the annual household income, socio-economic group and urbanity of those who speak or write Welsh is comparable to all adults in Wales. Welsh speakers/ writers are more likely be in the 55+ than in the 35-54 age group (42% aged 55+ vs. 29% aged 35-54).

Figure 1.16 Demographic profile of those who can speak or write Welsh



Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ : 489 Wales, 135 speak or write Welsh (fluent and non-fluent)
Note: Figures for annual household income do not add up to 100% because a proportion of respondents chose not to answer the question or didn't know

Take-up of communications services and devices among those who speak or write Welsh

Figure 1.17 shows that in 2016, those whose speak or write Welsh are less likely than all adults in Wales to have access to any type of internet at home (74% vs. 84%). There are no other statistically significant differences.

Figure 1.17 Take- up of communications services and devices in Wales

	Wales (total)	Respondents who speak or write Welsh
Fixed Line	85%	90%
Mobile phone (personal use)	91%	84%
Smartphone (personal use)	65%	59%
Computer (any type)	85%	76%
Tablet computer in household	67%	64%
Total Internet	84%	74% ↓
Broadband (fixed and mobile)	79%	71%
Fixed broadband	77%	70%
Mobile internet	61%	52%
Smartphone internet access only	4%	1%
DAB radio	42%	53%
Pay TV on main set	68%	64%
Bundle	67%	60%

Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+: 489 Wales, 135 speak or write Welsh (fluent and non-fluent)
↑↓ Indicates significant increase/ decrease compared to Wales as a whole at the 95% confidence level.
Note: Mobile internet is access using a mobile phone or smartphone for web/data access.

2 Television and audio-visual content

2.1 Recent developments in Wales

ITV Cymru Wales

ITV launched a new HD channel, ITV Cymru Wales HD, in time for the 2015 Rugby World Cup. ITV Wales used the broadcast rights acquired by ITV to provide extended coverage of the Welsh team's progress in the World Cup. The move to HD has had a positive effect on audience figures, and the share for ITV Wales is now the fourth highest share of viewing of all the ITV regions. Since moving to its new HD-capable broadcast centre in Cardiff Bay in June 2014, securing the investment needed for HD transmissions across Freeview, satellite and cable has been a key priority for ITV Wales.

ITV Wales has been operating under a stand-alone licence for Wales. It is required to produce four hours of news and 90 minutes of non-news programming per week.

ITV's acquisition in 2015 of Welsh production company Boom Cymru, which produces content for S4C, BBC and ITV Wales, has significantly strengthened ITV Plc's programme base in Wales.

Programming

Highlights of ITV Wales' coverage during the year included the Rugby World Cup 2015, while ITV's securing of rights to televise the Six Nations Rugby Championship for the next six years helped to enrich ITV Wales' sports news coverage with two special match preview programmes.

ITV Wales provided extensive coverage of the National Assembly for Wales Election in May 2016, producing dedicated programming under the banner *Wales Decides 2016*. The schedule included a seven-and-a-half-hour overnight election results programme with reporters stationed at 16 locations across Wales.

ITV Cymru Wales has announced the production of special programmes to commemorate the 50th anniversary of the Aberfan disaster, to be shown in autumn 2016, in addition to an eight-part series looking at how police solved infamous Welsh crimes.

BBC Wales

The BBC Trust approved the extension of S4C's remaining on iPlayer until the end of the next licence fee period in 2021/22. This follows a successful pilot period that started in December 2014. The BBC also continues to provide Welsh language content on its BBC Cymru Fyw webpage. Alongside the on-demand TV content on iPlayer and the Welsh language content on the website, BBC Radio Cymru announced its intention to pilot a digital 'pop-up' service to broaden the choice of content it can offer audiences, particularly younger ones.

Construction started on the new BBC Wales building in Central Square, Cardiff. An independent report from BOP Consulting suggested that this would result in a £1bn economic benefit for the region over the next ten years, as it would encourage the wider regeneration of this high profile city centre site.

Programming

The share of BBC One and Two Wales-opted programming remained strong: programmes about Wales added an average of 1.5 points to the share of the corresponding displaced network programmes. BBC Wales-opted programming reached around a third of people in Wales each week – a slightly lower figure than last year. This programming included news, live sport, current affairs and a range of factual documentaries and series including Real North Wales and Live Longer Wales.

Highlights of the past year included coverage on TV, radio and online of the National Assembly election, and comprehensive coverage on Radio Wales and Radio Cymru of the Wales football team's success in reaching the Euro 2016 finals.

Drama highlights included *Hinterland* for BBC One Wales and *Pobol y Cwm* for S4C.

BBC Wales also sought to portray a more contemporary, diverse Wales with programmes such as *Young, Welsh and Pretty Skint* and *Body Matters,* while the Tower project focused on the lives of people who live in and around the tower blocks in Butetown, once known as Tiger Bay.

Network television production by BBC Wales included *War and Peace* and *A Midsummer Night's Dream*.

Channel 4 out-of-England production quota

The Channel 4 quota for programming outside England (in Scotland, Wales and Northern Ireland combined) is currently set at 3% by volume and spend, rising to 9% from 2020. The channel gained some ground in 2015 with the success of *Educating Cardiff*. The series performed particularly well for children aged 10-14, the 16-24s and for viewing in Wales, with share figures far higher than the slot average.

Channel 4 reports to the Wales Advisory Committee on an annual basis. We welcomed Channel 4 to the Ofcom Advisory Committee for Wales meeting in November 2015, at which members of the committee were updated on C4's progress towards meeting its increased quota which will apply from 2020.

Local TV to get greater prominence on Freeview

Digital UK has announced its decision to give Welsh local TV a more prominent position on the Freeview TV guide. The changes follow BBC Three's move online, and will enable current and future Welsh channels to move from channel 23, where they currently are on the EPG, to channel 8 on Freeview.

Cardiff's local TV station, Made in Cardiff, is now being managed by the Bristol office of the Made TV Group, following the resignation of the Cardiff station manager in January 2016. In September 2015 Ofcom granted Made in Cardiff's request to keep its weekly hours of first-run local programming, and of first-run local programming in peak-time, at the existing Year 1 commitment levels. Ofcom decided that these changes would not affect the station's overall character of service.

Two other local TV services are due to launch in Wales. Ofcom has granted extensions to the launch dates of both operations, Bay TV Clwyd and Bay TV Swansea, from their initial target date of January 2016.

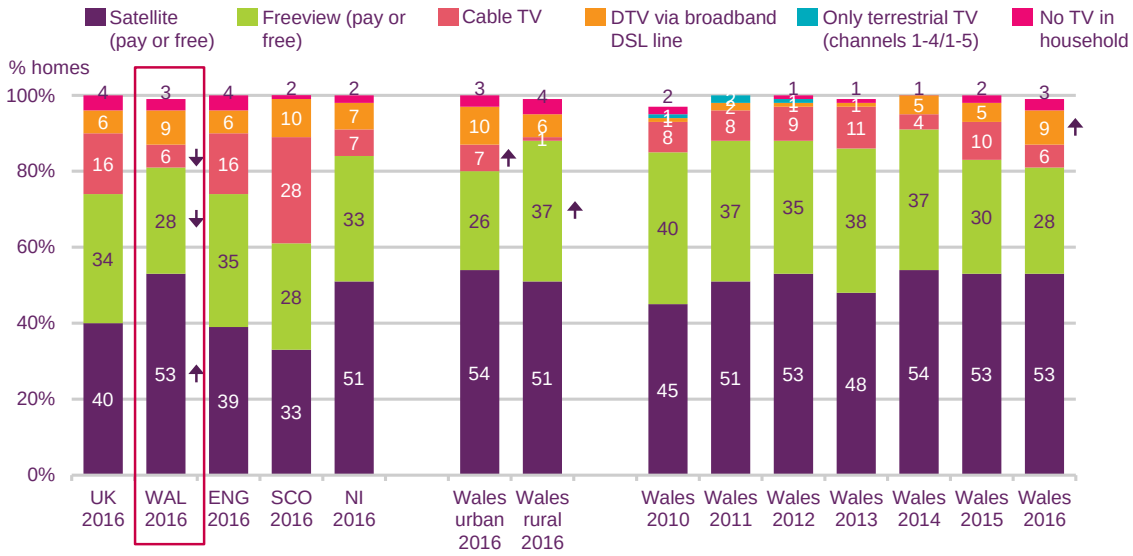
2.2 Television platform take-up in Wales

Over half of Welsh households receive satellite television through their main set; this continues to be higher than in the UK overall

Figure 2.1 shows that in 2016, satellite penetration across households in Wales was unchanged since 2015 (at 53%). Statistically, Freeview and cable TV take-up also remained unchanged. Penetration of DTV via a broadband connection is up from 5% to 9% since 2015.

There is no difference by location in 2016 for take-up of satellite TV in Wales (54% in urban areas vs. 51% in rural areas). Take-up of Freeview is, however, higher in rural areas (37% vs. 26% urban) while take-up of cable services is higher in urban areas (7% vs. 1% rural). Compared to the UK overall, penetration of satellite TV is higher in Wales (53% vs. 40%), while households in Wales are less likely than the UK overall to have Freeview (28% vs. 34%) or cable TV (6% vs. 16%).

Figure 2.1 Main television set share, by platform



Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland, 240 Wales urban, 249 Wales rural, 1075 Wales 2010, 493 Wales 2011, 513 Wales 2012, 492 Wales 2013, 491 Wales 2014, 496 Wales 2015, 489 Wales 2016)
Significance testing: Arrows indicate any significant differences between Wales and UK in 2016, between Wales urban and rural in 2016 and between Wales 2015 and 2016
QH1A: Which, if any, of these types of television does your household use at the moment?

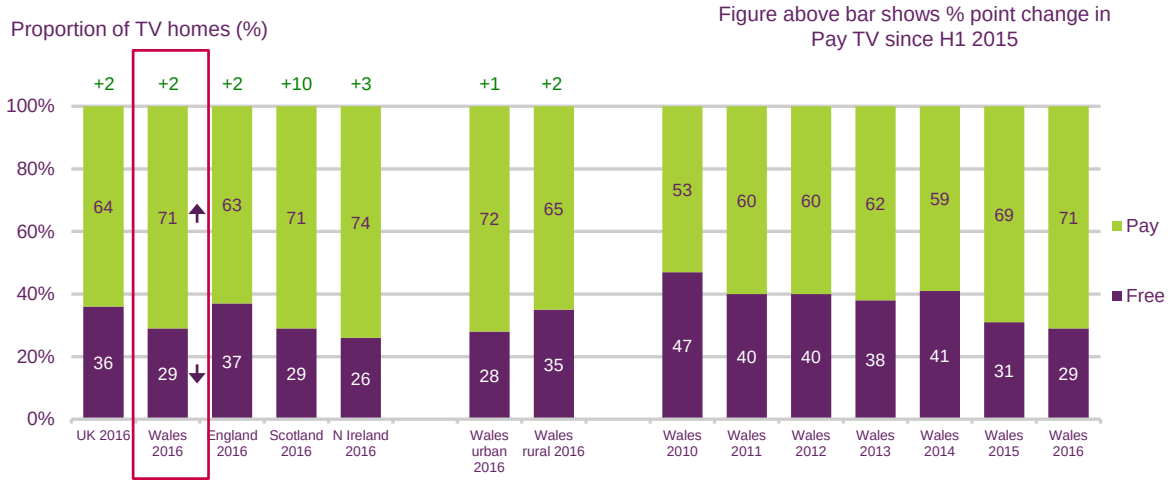
Households in Wales are more likely than the UK as a whole to have pay TV

In 2016, seven in ten households in Wales (with a television set) had pay TV[4] (71%); this incidence is unchanged since 2015. As in 2015, households in Wales are more likely than the UK overall to have pay TV (64%).

Take up of pay TV does not vary significantly by urban/ rural location.

[4] 'Free TV' refers to households that only receive Freeview with free channels (without any additional subscriptions to services such as Netflix or Top Up TV etc.) or only receive Freesat satellite TV. Pay TV refers to all other types of television service.

Figure 2.2 Proportion of homes with free and pay television



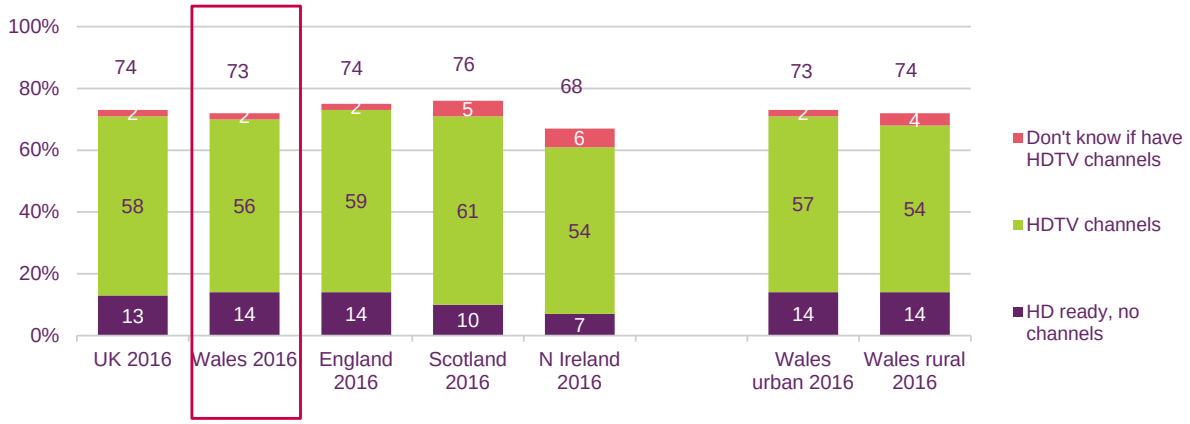
Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ with a TV in household (n = 3606 UK, 471 Wales, 2148 England, 491 Scotland, 496 Northern Ireland, 231 Wales urban, 240 Wales rural, 1060 Wales 2010, 483 Wales 2011, 508 Wales 2012, 485 Wales 2013, 480 Wales 2014, 485 Wales 2015, 471 Wales 2016)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016, between Wales urban and rural in 2016 and between Wales 2015 and 2016. Circles around the +/- figures above the chart indicate any significant difference between 2015 and 2016 for Wales, urban and rural.
QH1A: Which, if any, of these types of television does your household use at the moment?

Three-quarters of TV households in Wales have an HD TV set, in line with the UK overall

Among households in Wales with a TV set, 73% claimed to have either HDTV services or an HD-ready television set. More than half of the TV-owning households in Wales (56%) receive HDTV services, with a further 14% claiming to have a HD-ready TV, but not receiving HD services. Each of these incidences is in line with the UK overall.

In Wales, the level of HD-ready TV set ownership does not differ between urban and rural locations.

Figure 2.3 Proportion of homes with HD television



Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ with a TV in the household (n = 3606 UK, 471 Wales, 2148 England, 491 Scotland, 496 Northern Ireland, 231 Wales urban, 240 Wales rural)
Significance testing: Arrows indicate any significant differences between Wales and UK in 2016 and between Wales urban and rural in 2016
QH53: Is the main TV in your household an HDTV set or HD ready?/ QH54: Although you have an HDTV ready set, to actually watch TV channels and programmes that are broadcast in high definition, you need an HD set top box or a TV with built-in HDTV receiver. For the main TV set, does your household have an HD TV service?

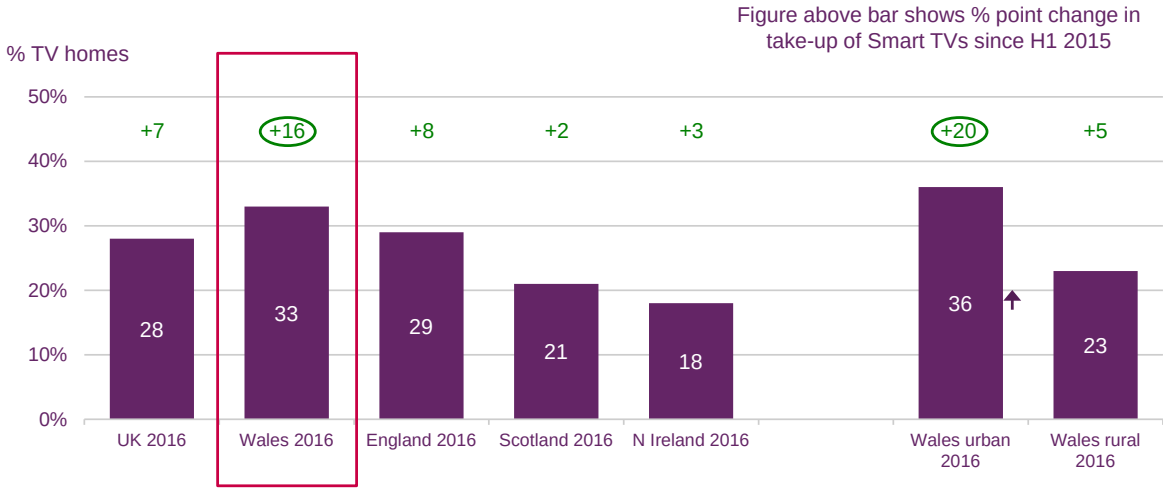
The proportion of TV households in Wales with a smart TV has doubled in the past year

Among those in Wales with a TV in the household, 33% claimed to have a smart TV set, in line with the UK overall and an increase of 16pp since 2015.

Since 2015, smart TV ownership in urban areas of Wales has increased (36% vs. 16%) and ownership in urban areas in 2016 is higher than in rural areas (36% vs. 23% in 2015).

Using a smart TV's inbuilt internet functionality is only one way of connecting a TV to the internet. Set-top boxes, game consoles and dongles can also be used to make a TV internet-enabled. The proportion of households in Wales with a connected TV is likely to be greater than the smart TV take up figure of 33%.

Figure 2.4 Smart TV take-up



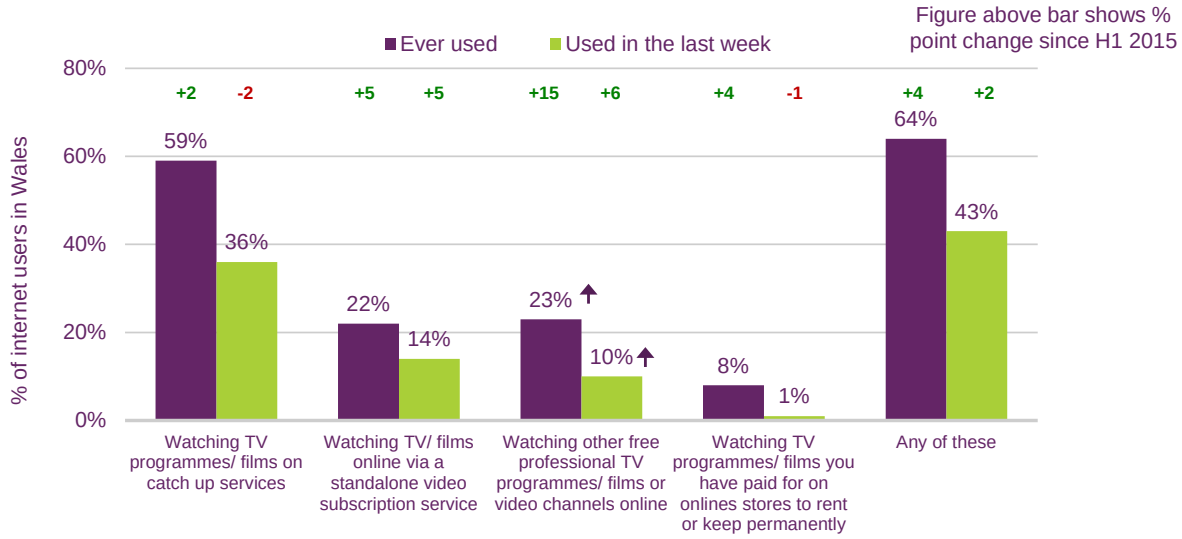
Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ with a TV in household (n = 3606 UK, 471 Wales, 2148 England, 491 Scotland, 496 Northern Ireland, 231 Wales urban, 240 Wales rural)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016 and between Wales urban and rural in 2016. Circles around the +/- figures above the chart indicate any significant difference between 2015 and 2016 for Wales, urban and rural.
QH62: Are any of your TV sets 'smart TVs'? These are new types of TV that are connected to the internet and can stream video directly onto your television screen, without the need for a computer, set-top box or games console.

Catch-up services are the most popular way to watch TV programmes and films online among internet users in Wales

Among those in Wales who use the internet at home or elsewhere (e.g. on their smartphone, tablet or laptop), three in five said they had ever watched TV programmes or films on a catch-up service (e.g. BBC iPlayer, All4, Demand 5, Sky On Demand). More than one in three internet users claimed to have watched these services in the past week.

Use of stand-alone video subscription services (e.g. Netflix, Amazon Prime) was less popular, with around one in five internet users in Wales claiming to have ever used them. A similar proportion of internet users had ever watched TV programmes or films from free professional sources (e.g. official YouTube Channels, producers' websites) and less than one in ten said they had watched TV programmes or films they had bought or rented digitally.

Figure 2.5 TV programmes, films and on-demand on any device



Source: Ofcom Technology Tracker, H1 2016
Base: All Wales adults aged 16+ who use the internet at home or elsewhere (n = 401)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales 2015 and 2016.
QH46: Thinking about your personal use of TV programmes and films online and on-demand services that you may use on any device (e.g. smartphone, TV set, tablet or laptop) anywhere, which of the following, if any, have you personally ever used? / QH47: And which, if any, of these have you used in the last week?

2.3 Broadcast television content

Definitions

Broadcast TV viewing

BARB analysis is based on viewing of scheduled TV programmes such as those listed in TV listings magazines or on electronic programme guides (EPGs) on TV sets. Broadcast TV viewing refers to programmes watched on the TV set live at the time of broadcast, or recordings of these programmes, or viewing of these programmes through catch-up player services (referred to as time-shifted), up to seven days after they were televised.

Channel groups are referred to as 'main five PSB channels', 'PSB portfolio channels' and 'PSB family' or 'PSB broadcaster' channels. These are defined as:

Main five PSB channels:

BBC One, BBC Two, Channel3/ITV (inc ITV Breakfast), Channel 4 and Channel 5. Includes HD variants but excludes +1s.

PSB portfolio channels:

BBC: BBC Three, BBC Four, BBC News, BBC Parliament, CBBC, CBeebies, BBC red button channels

ITV: Channel3/ITV+1 , ITV2, ITV3, ITV4, CITV, ITVBeITV Encore

Channel 4: Channel 4+1, E4, More4, Film4, 4Music, 4seven,

Channel 5: Channel 5+1, Channel 5+24, 5*, 5USA, Spike.

+1 and HD variants are included where applicable.

PSB family or PSB broadcaster channels:

The main five PSB channels and all PSB portfolio channels combined.

All viewing data is based on individuals aged 4+.

People in Wales spend an average of 4 hours 10 minutes per day watching TV

In 2015, people in Wales spent an average of 4 hours 10 minutes per day watching television, higher than Scotland (4 hours), Northern Ireland (3 hours 45 minutes) and the UK average (3 hours 36 minutes). Of the total time spent watching television, 2 hours and 10 minutes was spent on the main five PSB channels. This was higher than for all other nations and the UK as a whole. When the PSB portfolio of channels is included, viewers in Wales spent 3 hours a day watching the PSB family of channels.

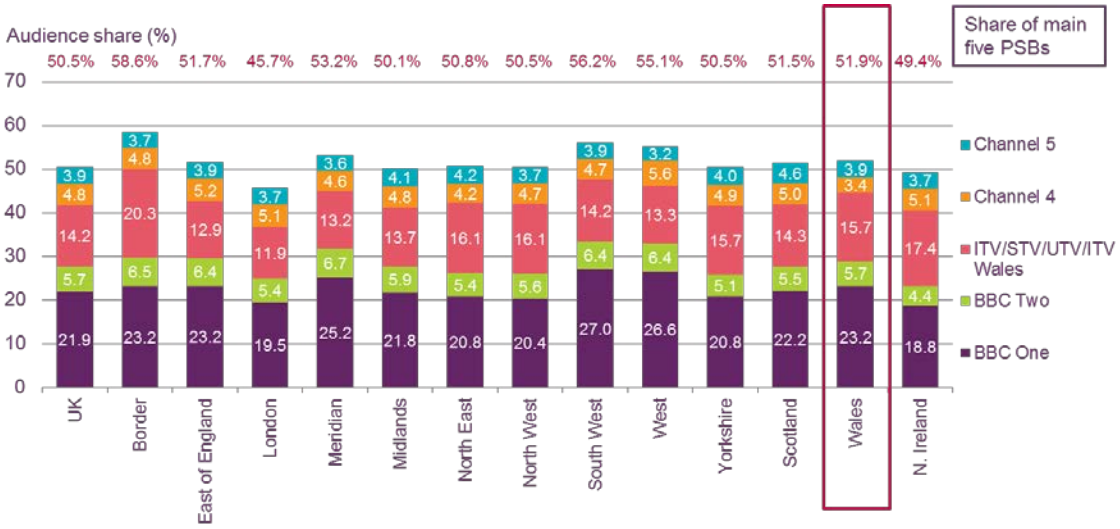
Figure 2.6 Average minutes of television viewing per day, by nation: 2015

Source: BARB, Individuals (4+). Please see definitions for list of PSB channels
**Note: This figure reflects the average across the English regions with the highest in Border at (4 hours 10 minutes) and lowest in West at 3 hours 17 minutes respectively.*

Over half of all viewing is to the main five PSB channels

In 2015, the main five PSB channels accounted for a combined 51.9% share of total TV viewing in Wales, slightly higher than their combined share in Scotland and Northern Ireland and 1.4 percentage points higher than the average 50.5% share across the UK. In Wales the distribution of viewing share across the main five PSB channels is similar to the UK as a whole. However, viewing to Channel 4 was lower in Wales (3.4%) than in the UK as a whole (4.8%) and lower than all the other UK nations and regions.

Figure 2.7 Share of the main five PSB channels in all homes, by UK nations and regions: 2015

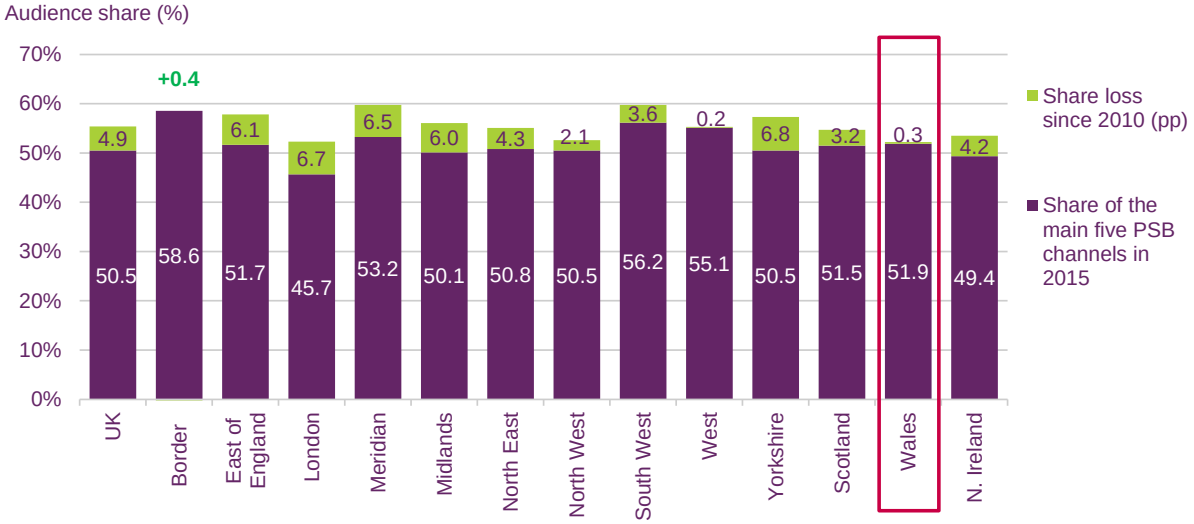


Source: BARB, individuals (4+). Note: Chart shows figures rounded to one decimal place. Numbers may not appear to sum up, due to rounding.

The combined share of the main five PSB channels has decreased since 2010

Between 2010 and 2015 there was a slight (0.3pp) reduction in the combined share of the main five PSB channels in Wales. This small decline was similar to the West region (-0.2pp). The Border region was the only one where PSB audience share actually increased (+0.4pp).[5] The growth was driven by a 4pp increase in viewing to BBC One vs 2010, and only marginal dips in viewing to the other main PSBs. This reduction was lower than the decreases in Northern Ireland (4.2pp) and Scotland (3.2pp) as well as across the UK as a whole (4.9pp).

Figure 2.8 Change in combined share of the main five PSB channels, all homes: 2010 and 2015



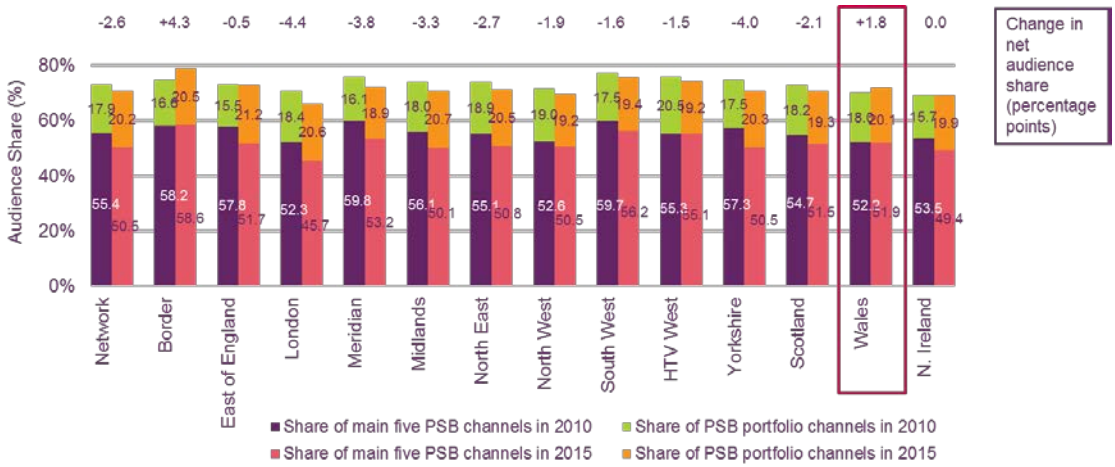
Source: BARB, individuals (4+).

[5] This might be explained by the population profile of the ITV Border region; it has the highest proportion of 65+ adults of all the BARB ITV regions and the highest proportion of 45+s overall (54% vs. 46% for the UK average).

The total share of the main five PSBs and their families of channels increased between 2010 and 2015 in Wales

While the main five PSB channels' share of viewing in Wales decreased by 0.3pp, the PSB portfolio channels increased their share of viewing in Wales by 2.1pp between 2010 and 2015. This resulted in a net share gain overall of 1.8pp for the main five PSBs and their families of channels, to 72.0%. Only the Border region (+4.3pp) had a higher gain in net audience share; every other region (apart from Northern Ireland which held steady) and the UK as a whole saw a decline.

Figure 2.9 Net change in the audience share of the main five PSB channels and their portfolio channels, all homes: 2010 and 2015



Source: BARB, individuals 4+.

Regional news and HD channels

Channel 3/ITV

ITV does not currently broadcast regional HD variants for all of its regions. This means that for some areas, an out-of-region HD version is shown on the ITV HD channel. London, Meridian, Wales, Central, Granada, Anglia*, Yorkshire*, Tyne Tees* and STV currently offer the HD service, so in the remaining areas, the local news shown on the HD variant is not the local news for that region (e.g in Border, the Granada news feed is shown). The chart below includes all viewing to any early evening news programming, even if it is not the relevant local one to the area. The ITV early evening news bulletin share analysis in the 2014 CMR excluded the ITV HD variants and looked just at the SD share. Note: ITV HD is not reported against the ITV Ulster panel.

BBC One

There are BBC One HD channels for Scotland, Wales and Northern Ireland which show local news in HD. At the moment BBC One HD in the English regions cannot show local news (a message prompts viewers to turn over to BBC One during the regional news slot). The chart below reflects viewing of the early evening news on BBC One HD, where available.

The reporting of BBC One is unchanged from the CMR 2014.

*On 31 March 2016 ITV launched these regions in HD on Sky and Freesat (Freeview and Virgin Media pending).

BBC One's and ITV's early evening local news bulletins attract a greater share in Wales compared to the UK average for the same weekday slot

Wales Today, BBC One's early evening news bulletin, had an average 30.7% share of TV viewing in Wales between 6.30pm and 7.00pm in 2015, higher than the BBC One UK average for the same time period (29.6%). *ITV News at Six,* ITV's counterpart bulletin, attracted a lower share than BBC One's *Wales Today,* although, at 20.1%, it was also higher than the Channel 3 UK average (18.5%).

Figure 2.10 BBC One and ITV/ STV/ UTV/ ITV Wales early evening news bulletin shares, all homes: 2015

Source: BARB, individuals (4+). BBC One includes HD variant. ITV includes HD variant but excludes +1. Early evening ('local') news bulletin figures based on 'regional news' genre programmes, start time range 17:55-18:35, 10mins+ duration, weekdays. UK figures are based on share to respective early evening news bulletin slot times. BBC One's early evening news bulletin is transmitted between 18:30-19:00 and ITV/ STV/ UTV/ ITV Wales' is transmitted between 18:00-18:30.

Almost six in ten adults in Wales use the TV as their main source of UK and world news

In Wales in 2015, nearly six in ten (58%) adults aged 16+ said that the TV was their main source of UK and world news. Websites or apps[6] were used by two in ten adults as a source of news, more than any other nation and the UK as a whole. Use of radio and newspapers for UK and world news was used by a similar proportion of adults in Wales (9% and 8% respectively).

[6] These include websites or apps accessed using a computer, laptop, netbook or tablet and using a mobile phone.

Figure 2.11 Respondents' main media source for UK and world news, by nation: 2015

Source: Ofcom Media Tracker 2015.
Base: All (2,107); England (1,607); Scotland (180); Wales (164); Northern Ireland (156).
Responses ≥ 3% labelled. Significance testing shows any difference in the main source of news between any nation and all adults in 2015

2.4 TV programming for viewers in Wales

The following section outlines spend and hours of programming for viewers in Wales, Scotland, Northern Ireland and the English regions, provided by the BBC and ITV/ STV/ UTV. The figures exclude Gaelic and Welsh-language programming but include some spend on Irish-language programming by the BBC. See section 2.5 for details on S4C.

Historical financial figures are presented in nominal terms and are not adjusted for inflation. The reason for this is to align the CMR suite of reports and to provide a 'base' view of the overall market to inform any further analysis.

Definitions

First-run originations - Programmes commissioned by or for a licensed public service channel with a view to their first showing on television in the United Kingdom in the reference year.

First-run acquisitions - A ready-made programme bought by a broadcaster from another rights holder and broadcast for the first time in the UK during the reference year.

Repeats - All programmes not meeting one of the two definitions above.

Spend on output - includes all costs incurred by the broadcaster on content; these usually include production costs for in house productions and licensing costs for commissioned and acquired programmes.

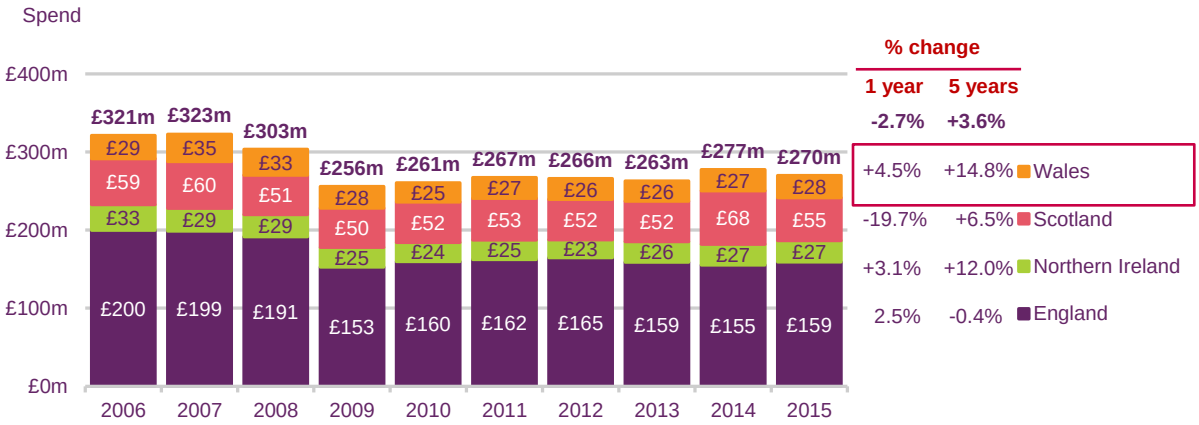
BBC and Channel 3 licensees' spend on first-run originated content for viewers in Wales increased by 4.5% in 2015

£270m was spent by the BBC and ITV/ STV/ UTV on producing first-run originated programmes specifically for viewers in Wales, Scotland, Northern Ireland and the English regions in 2015, down by £7m in nominal terms year on year. Since 2010, spend on first-run originated nations' and regions' output by the BBC and ITV/ STV/ UTV has risen by £9m.

The UK-wide year-on-year decrease in spend can be accounted for in part by the exceptional events of 2014, which included a spending increase in Scotland due to the referendum on Scottish independence, and the Commonwealth Games, held in Glasgow during July and August.

In nominal terms, the year-on-year spend by the BBC and ITV Wales on first-run originated programming for viewers in Wales has increased from £27m in 2014 to £28m in 2015, a rise of 4.5%.

Figure 2.12 Spend on first-run originated nations' and regions' output by the BBC/ ITV/ STV/ UTV



Source: Broadcasters. All figures are nominal.
Note: Spend data for first-run originations only. Excludes spend on BBC Alba and S4C output but includes some spend on Irish language programming by the BBC. Spend on content broadcast in the Scottish part of the ITV Border region is included within England from 2006-2013, but in Scotland thereafter. These figures do not include spend on network content. For more information on S4C, please see Section 2.5.

Total spend on non-news /non-current affairs programming for people in Wales increased year on year by 14%

Turning to total spend by genre, including acquisitions and repeats, BBC and ITV Wales spend on nations' and regions' output in Wales was up by 5% in nominal terms since 2014, and up by 15% since 2010.

Spend on non-news/non-current affairs programming for people in Wales increased by 14% in 2015, and has increased by 28% since 2010; this is the highest five-year increase in non-current affairs/non-news programming in any UK nation.

Spend on news decreased by 3% while spend on current affairs decreased by 7%, both of which had risen substantially in 2014.

Figure 2.13 Change in total spend on nations' and regions' output, by genre and nation: 2010-2015

	UK		England		N. Ireland		Scotland		Wales	
	1yr (%)	5yr (%)	1yr (%)	5yr (%)	1yr (%)	5yr (%)	1yr (%)	5yr (%)	1yr (%)	5yr (%)
Current affairs	-10%	-1%	-1%	-28%	11%	68%	-19%	34%	-7%	11%
News	0%	2%	-1%	-1%	4%	17%	1%	16%	-3%	0%
Non-news/non-current affairs	-14%	1%	0%	-25%	1%	-4%	-28%	-4%	14%	28%
Total spend in 2015	£271m		£159m		£27m		£56m		£29m	

	UK		England		N. Ireland		Scotland		Wales	
	1yr	5yr	1yr	5yr	1yr	5yr	1yr	5yr	1yr	5yr
Change in spend	-5%	1%	-2%	-4%	3%	12%	-20%	6%	5%	15%

Source: Broadcasters. All figures are nominal.
Note: Excludes spend on BBC Alba and S4C output but includes some spend on Irish-language programming by the BBC. These figures do not include spend on network content. Spend on programming for the ITV Border region is divided between England and Scotland in 2014-2015 and attributed to England only before 2014.

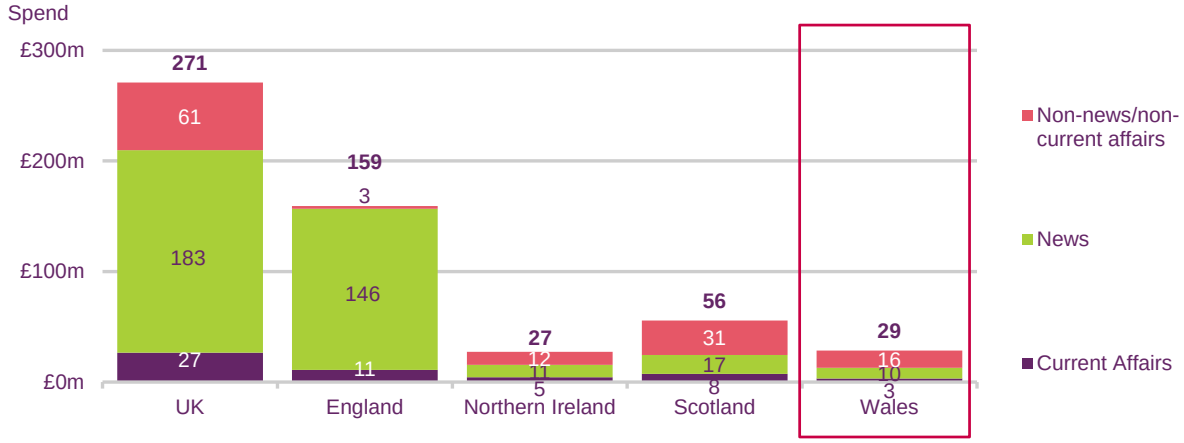
Expenditure by the BBC and ITV on programming for viewers in Wales increased by 5% year on year

Expenditure on nations' and regions' content broadcast by the BBC and ITV for people in Wales increased by 5% in nominal terms to £29m in 2015.

Spend on non-news/non-current affairs accounted for over half of total spend; news accounted for a further 34%, with current affairs making up the remaining 12%.

In addition to this, the BBC spent £28m delivering other content to S4C under the terms of the operating agreement, and contributed £5m to BBC Alba in Scotland.

Figure 2.14 Total spend by the BBC/ ITV/ STV/ UTV on nations/ regions programming for the main PSB channels (BBC1 and Channel 3): 2015



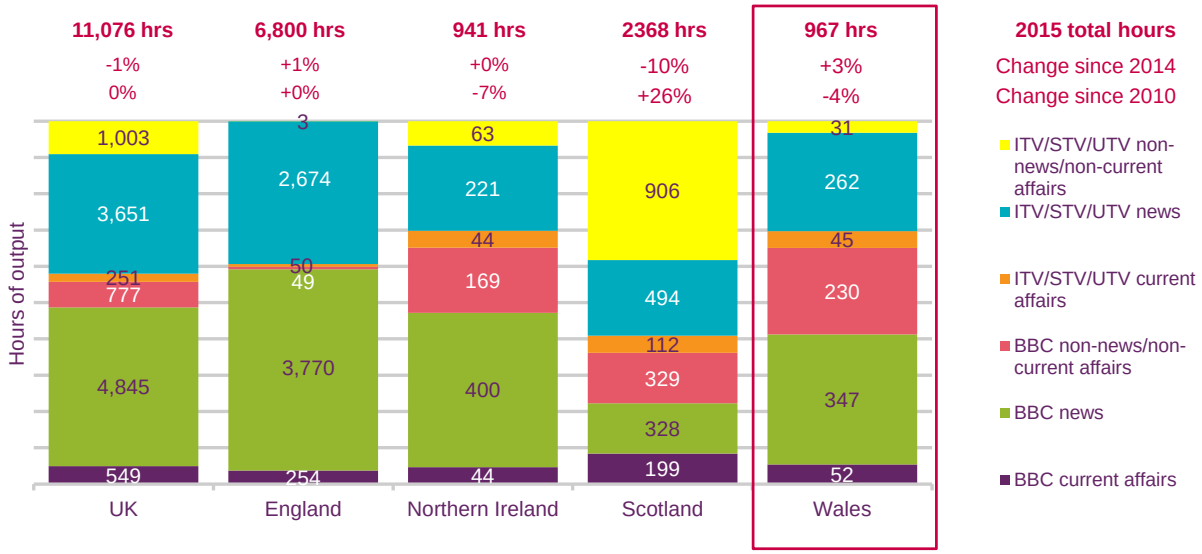
Source: Broadcasters.
Note: Excludes spend on BBC Alba and S4C output but includes some spend on Irish-language programming by the BBC. These figures do not include spend on network content. Scotland figures include programming for viewers of ITV Border in Scotland. This was 73 hours of current affairs in 2015.

First-run originated hours in Wales up 3% year on year

The BBC and ITV/ STV/ UTV produced a total of 11,076 hours of first-run originated content for the English regions, Scotland, Wales and Northern Ireland in 2015, down by 123 hours (-1%) year on year. Since 2010, the hours of first-run originated nations'/regions' output has remained broadly stable in percentage terms (0%).

Wales had the largest rise in the number of hours of first-run originated programming in 2015, up by 3%. However, there has been a 4% decrease in first-run originated hours for Wales overall since 2010.

Figure 2.15 Hours of first-run originated nations/regions output, by genre and broadcaster: 2015



Source: Broadcasters.
Note: Hours data for first-run originations only. Excludes hours for BBC Alba and S4C output but includes some hours of Irish-language programming by the BBC. These figures do not include hours of network content. Scotland figures include programming for viewers of ITV Border in Scotland. This was 73 hours of current affairs in 2015.

Total cost per hour for nations' programming has increased by 23% since 2010 for Wales

When analysing the cost of making programmes for the nations, Wales had the highest average cost per hour in 2015 at £28,000, £5,000 more than the UK average.

In nominal terms, over the five-year period, cost per hour increased by 23% in Wales, compared to the UK average increase of 5%. This cost per hour increase could be attributed to the production of more expensive content for viewers in Wales since 2010[7].

Figure 2.16 Cost per hour of total nations and regions output, by nation: 2010-2015

Source: Broadcasters. All figures are nominal.
Note: Excludes spend on BBC Alba and S4C output but includes some spend on Irish language programming by the BBC. These figures do not include spend on network content. Scotland figures include programming for viewers of ITV Border in Scotland. This was 73 hours of current affairs in 2015.

2.5 Welsh-language programming

Welsh-language output and spend

In 2013, S4C agreed with the BBC Trust that S4C would be part-funded by the television licence fee. As part of the terms of the agreement, S4C would receive £76.3m in financial year 2013/2014, falling year on year to £74.5m in 2016/2017[8]. It has been announced that S4C's funding from the licence fee will be maintained at £74.5m for 2017/18[9]. DCMS will also continue to provide funding of £6.8m to S4C until April 2017. The remaining 2% of funding comes from S4C's advertising revenue and commercial activities.

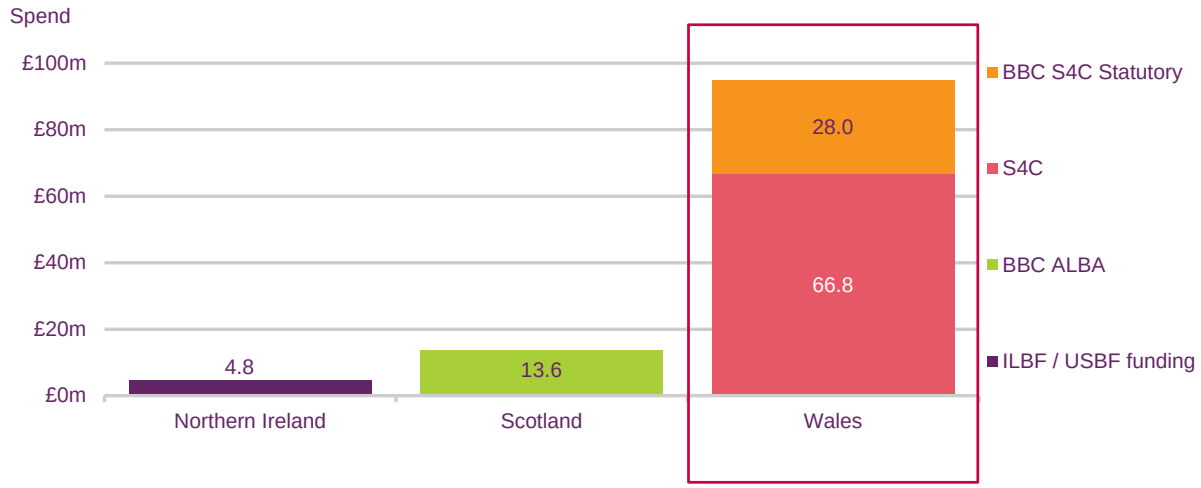
The BBC also has a statutory obligation to provide ten hours of content per week free of charge to S4C, including the *Newyddion* (news) service, the soap opera *Pobol y Cwm* and some sports and special events output, the value of which was agreed at £19.4m per annum. However in 2015/16 the BBC exceeded this budget and spent £28.0m on production and related costs for S4C content.

[7] Drama programming (such as the BBC/S4C drama Hinterland) traditionally costs more to make than other genres of programming.
[8] http://www.s4c.co.uk/e_press_level2.shtml?id=726
[9] http://www.s4c.cymru/e_press_level2.shtml?id=3180

Overall spend on programming on S4C is £94.8m

The combined spend of S4C and the BBC on programming for S4C totalled £94.8m in financial year 2015/16. This included the £28.0m spent by the BBC in delivering programmes outside S4C's budget under the terms of the operating agreement, and £66.8m in commissioning, acquisition and repeat costs incurred by S4C directly.

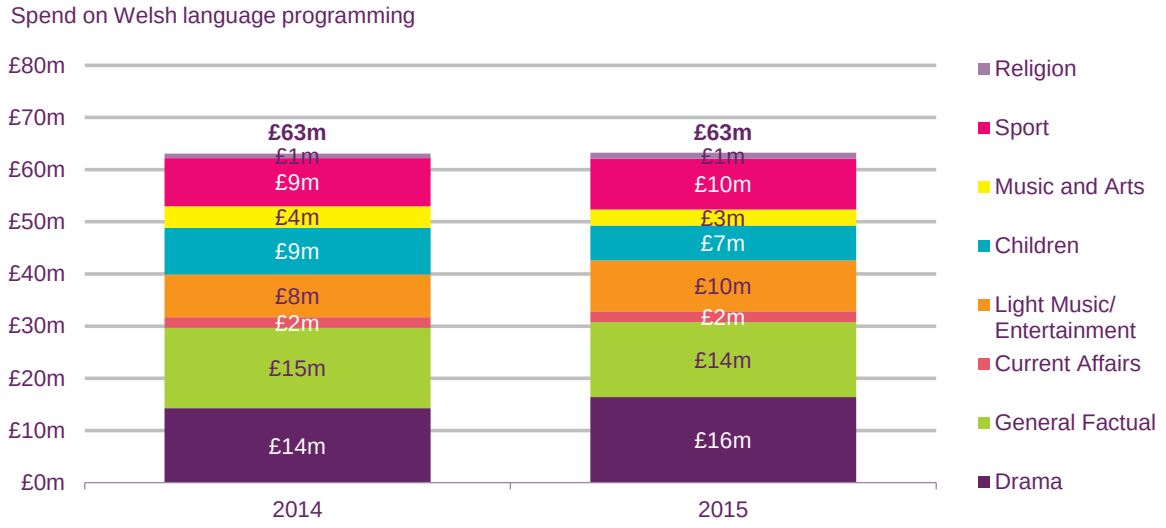
Figure 2.17 Other spend on other programming in the devolved nations: 2015



Source: Broadcasters.
Note: 'BBC S4C Statutory' refers to the cost to the BBC of programming supplied to S4C by the BBC as part of their statutory agreement. ILBF / USBF refers to additional production contributions by the Irish Language Broadcast Fund and the Ulster Scots Broadcast Fund. BBC S4C statutory and S4C figures cover the 2015/2016 financial year; BBC Alba and ILBF / USBF figures cover the 2015 calendar year.

S4C spend (excluding the previously-mentioned BBC production spend) on first-run commissioned programming in 2015 remained steady year on year in nominal terms, at £63m in 2015; representing a large proportion of S4C's £66.8m spend in 2015,

Figure 2.18 Spend by S4C on first-run Welsh-language programming



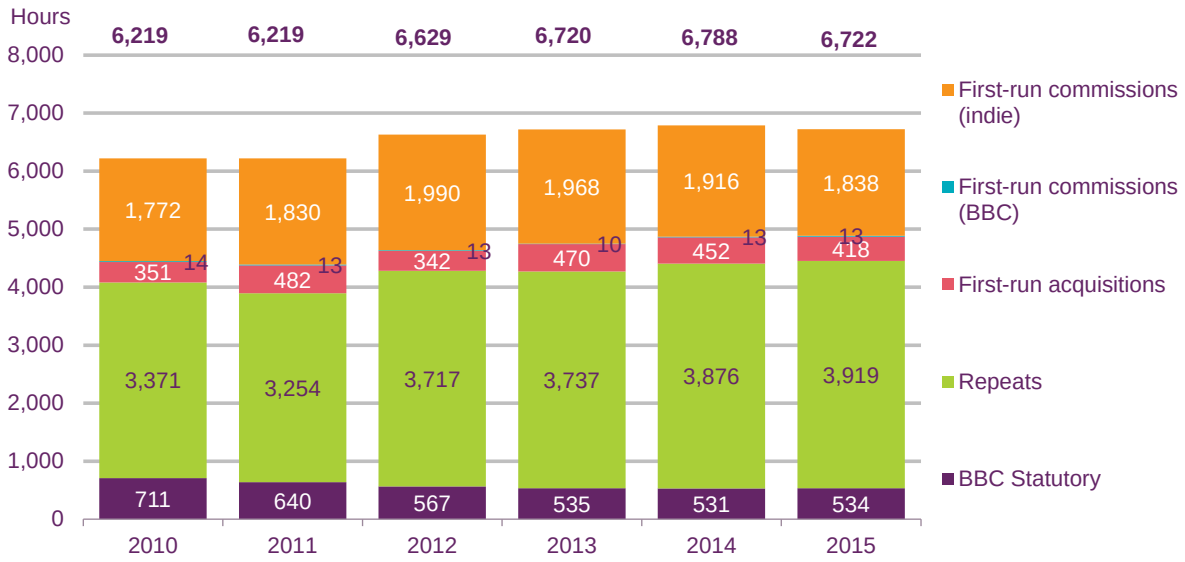
Source: S4C. All figures are expressed in nominal terms. Note: Does not include programming provided by the BBC under the statutory obligation.

The total number of hours broadcast by S4C in 2015 fell by 66 to 6,722 hours. Repeats continued to make up the majority of the channel's output, accounting for 58% of all programming during the year.

Repeated hours were up by 5%, from 3,876 hours in 2014 to 3,919 hours in 2015. First-run commissions from independent companies fell by 4% year on year, bringing the total to 1,838 hours in this category.

First-run acquisitions fell by 8% in 2015. BBC statutory programming hours remain steady, with a small increase of 3 hours, and at 534 hours in 2015, remained above the obligation of 520 hours per year. First-run commissions from the BBC remained at 13 hours in 2015.

Figure 2.19 Type of Welsh-language output on S4C, by hours



Source: S4C

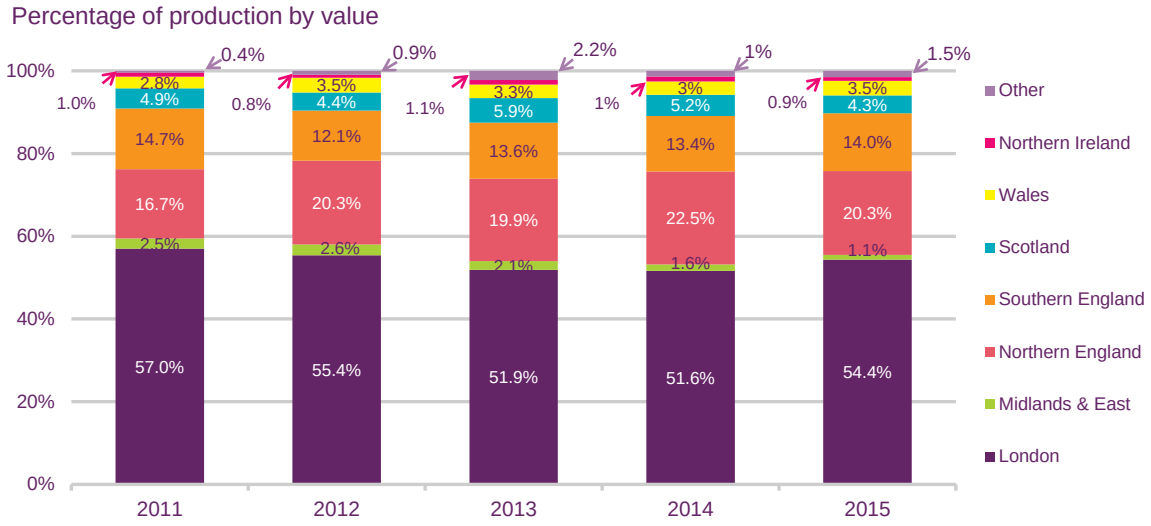
2.6 Network television productions made in Wales

Figure 2.20 and Figure 2.21 below illustrate the proportion of UK PSB network programmes that were produced in the nations and regions over the last five years, by expenditure and volume respectively.

In 2015 3.5% of network spend on original content, excluding news, was directed toward Wales, up from 3% in 2014. This returned 2.7% of all broadcast hours, also up from 1.8% in 2014. This indicates that the average cost per hour of production in Wales remained greater than the UK average.

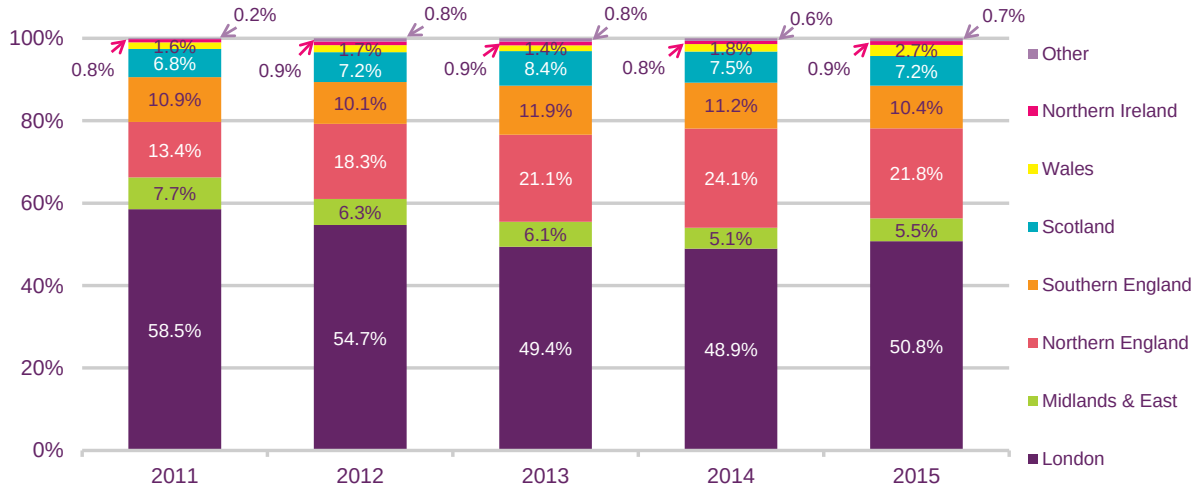
As in previous years, the majority of spend was in London. 54.4% of spend on original content returned 50.8% of all network hours.

Figure 2.20 Expenditure on originated network productions: 2011-2015



Source: Ofcom/broadcasters
Note: This expenditure does not include network news production .The category 'other' refers to programmes made by producers based within the M25 which qualify as regional productions on the grounds that 70% of total spend and 50% of off-screen talent spend was outside the M25 but not all in one macro-region, and therefore cannot be attributed to a single region. See http://stakeholders.ofcom.org.uk/broadcasting/guidance/programme-guidance/reg_prod/ on Ofcom website for further details.

Figure 2.21 Volume of originated network productions: 2011-2015



Source: Ofcom/broadcasters
Note: These hours do not include network news production. The category 'other' refers to programmes made by producers based within the M25 which qualify as regional productions on the grounds that 70% of total spend and 50% of off-screen talent spend was outside the M25 but not all in one macro-region, and therefore cannot be attributed to a single region. See http://stakeholders.ofcom.org.uk/broadcasting/guidance/programme-guidance/reg_prod/ on Ofcom website for further details.

3 Radio and audio content

3.1 Recent developments in Wales

Digital audio broadcasting (DAB) availability in Wales

The launch of the north-west Wales multiplex in late 2014 increased the availability of local DAB digital radio services for people in Wales, and a second UK-wide commercial digital radio multiplex, broadcasting 18 digital stations (including 14 new ones) launched in March 2016.

The new UK-wide digital radio multiplex is run by Sound Digital, a consortium of Arqiva, Bauer, and Wireless Group (formerly UTV Media GB). The multiplex (which is the transmission infrastructure used to deliver these services) carries new stations including Virgin Radio, talkRADIO, talkSPORT 2 and Share Radio. Coverage from the new multiplex is more limited than from the other UK-wide multiplexes, comprising BBC National and Digital One. UK-wide indoor coverage is currently 76.5% of UK households. In Wales, the figure will be 51.5%. DAB coverage from all operators is covered in section 3.3 of this document. The majority of listening in Wales continues to be on FM.

A rebrand and a new station for Town and Country Broadcasting

As part of its rebranding, Town and Country Broadcasting Ltd been renamed as Nation Broadcasting. The media company announced Nation Hits' rebranding, reverting to its original name, Swansea Bay Radio, on 1 March 2016, and launched a new national DAB station, Nation Gold, in December 2015, playing a mix of 70s, 80s and 90s music. Nation Broadcasting is building out its transmitter network to increase DAB coverage in Wales.

3.2 Radio station availability

There are now 68 stations broadcasting on DAB in Wales

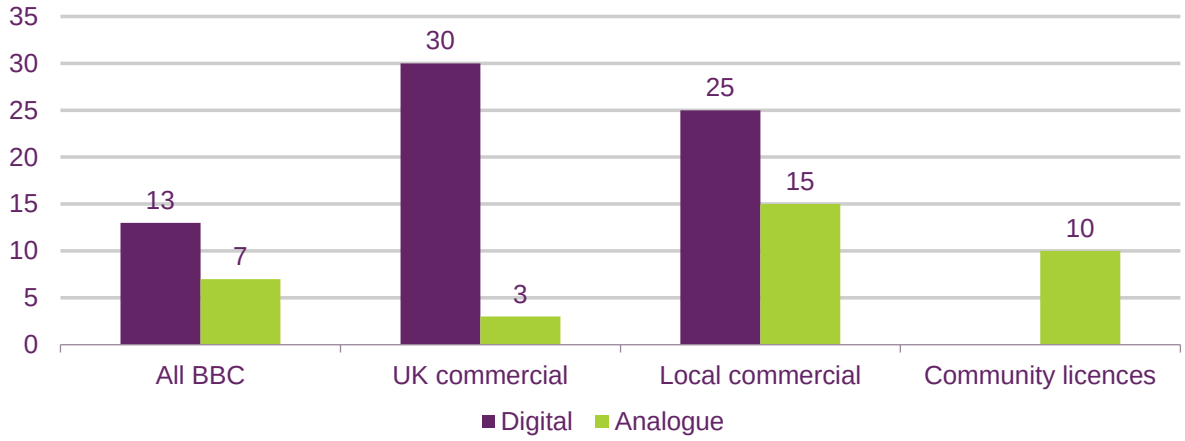
Following the launch of the Sound Digital multiplex in March 2016, there are now 68 stations available on DAB in Wales. The second UK-wide multiplex adds a further 18 digital stations to those already available: 13 from the BBC, 12 stations on the Digital One multiplex and 25 commercial stations on local DAB multiplexes.

However, not all of these digital stations will be available on DAB to listeners across all of Wales. As Figure 3.2 shows, the proportion of households within the coverage area for each type of station varies, and there are different services on each of the local DAB multiplexes serving different parts of Wales.

There are currently ten community radio stations on air in Wales – Calon FM, Tudno FM, BRfm, Radio Tircoed, Radio Glan Clwyd, Môn FM, Radio Cardiff, Radio Tircoed, Bro Radio and GTFM.

There are a further 35 analogue stations available in Wales. Many of these are simulcasts of DAB stations, but the ten community radio services and some of the local commercial radio services are available on analogue only in their local coverage areas.

Figure 3.1 Radio station availability



Source: Ofcom, May 2016
Note: This chart shows the maximum number of stations available; local variations and reception issues mean that listeners may not be able to access all of them.

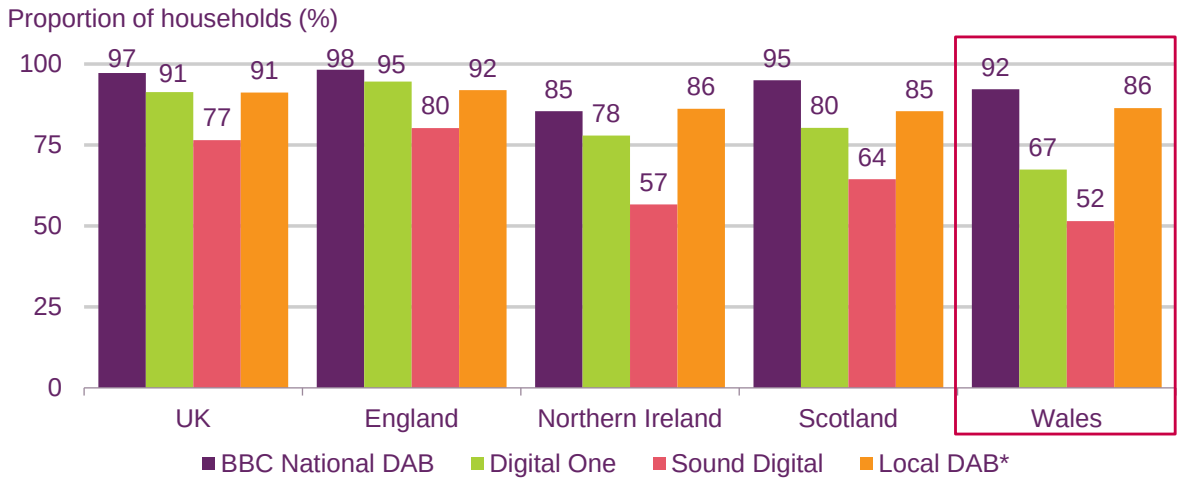
3.3 DAB coverage

All providers have increased their household DAB coverage in Wales

DAB services from the BBC are now available to 92% of households in Wales, an increase of 3pp in the past year. Coverage from Digital One, one of the UK-wide commercial multiplexes, also increased by 3pp; it can now be received by 67% of households in Wales.

Coverage from the local DAB multiplexes in Wales, as well as across the UK, is currently being extended with the addition of new transmitter sites. By Autumn 2016, the expected coverage of local DAB in Wales is 86% of households. This will be a 23pp increase compared to coverage in 2015.

Figure 3.2 Household DAB coverage



Source: BBC, Arqiva, Ofcom, May 2016.
'Figures for local DAB are projections of expected coverage for Autumn 2016 based upon a planned list of transmitter sites. The plan is continuing to be refined and actual coverage may differ slightly from those figures when the current programme of expansion completes.

3.4 Listening to audio content

More people in Wales listen to radio, and they listen for longer, than in the UK as a whole

In 2015, radio services reached 93.6% of the adult population in Wales. This is 4pp higher than the UK average, and the highest reach of any UK nation. Listeners in Wales also listened to radio for the longest compared to the UK as a whole, at 22.1 hours per week on average. This is a slight fall from the 22.4 hours per week in 2014.

Figure 3.3 Average weekly reach and listening hours: 2015

	England	Scotland	Wales	Northern Ireland	UK TOTAL
Average weekly listening	21.4 hours	21.1 hours	22.1 hours	20.2 hours	21.4 hours
Reach	89.6%	87.9%	93.6%	86.6%	89.6%

Source: RAJAR, All adults (15+), year ended Q4 2015. Reach is defined as a percentage of the area's adult population who listen to a station for at least 5 minutes in the course of an average week.

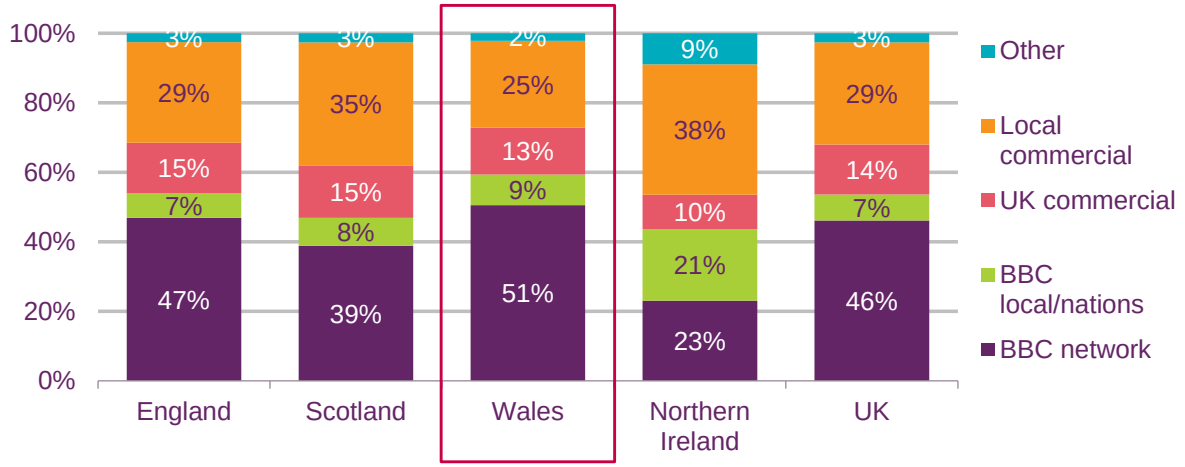
Over half of listening in Wales is to BBC network services

The UK-wide BBC network services accounted for 51% of total listening hours in Wales, 5pp higher than the UK average. Wales was the only UK nation in which these services took more than half of the share of total listening.

Local commercial stations in Wales have the lowest share of total listening hours for these types of service of any UK nation at 25%, 4pp lower than the UK average. Similarly, the share of listening to commercial stations overall (i.e. both local and UK-wide) in Wales is the lowest of any UK nation, at 38%. This is 5pp lower than the UK average.

Listening to the BBC nations' services (BBC Radio Wales and BBC Radio Cymru) accounted for 9% of listening, 2pp higher than the UK average for BBC local/nations services.

Figure 3.4 Share of listening hours by nation: 2015



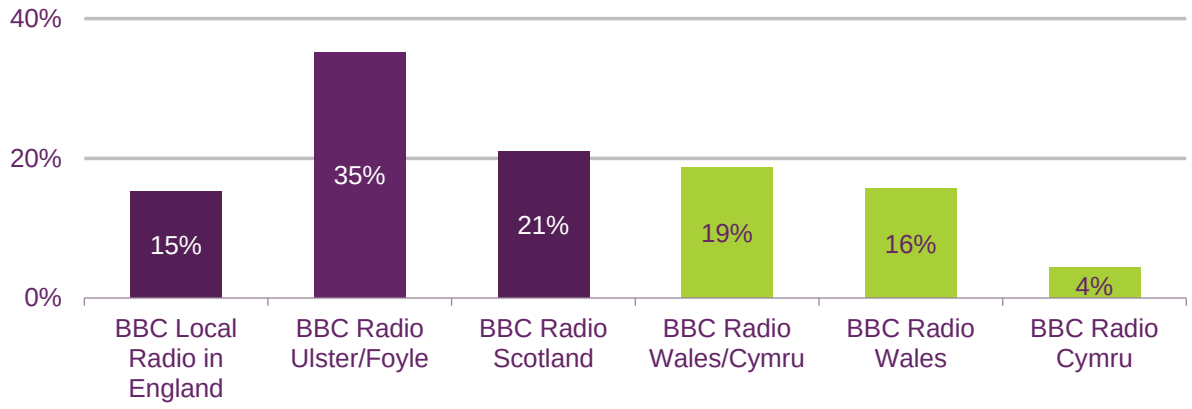
Source: RAJAR, All adults (15+), year ended Q4 2015

Just under one fifth of people in Wales listened to BBC Radio Wales or BBC Radio Cymru in an average week in 2015

The aggregated reach of the two BBC nations' services in Wales was 19% in 2015, slightly lower than the reach of BBC Radio Scotland, but higher than the aggregate weekly reach of the BBC's local services in England.

The average weekly reach for BBC Radio Wales and BBC Radio Cymru both fell year on year, leading to a 1.4pp fall for the aggregate reach of these services.

Figure 3.5 Weekly reach for nations'/local BBC services: 2015



Source: RAJAR, All adults (15+), year ended Q4 2015

3.5 Digital radio set ownership and listening

Half of adults in Wales who listen to radio have a digital radio set

Four in five (82%) adults in Wales ever listen to the radio, and half of these (50%) say they have at least one DAB radio set at home, unchanged since 2015. Ownership of DAB digital radios in Wales, among those who listen to radio, does not differ from the UK overall. There is no significant difference in level of ownership of digital radio sets among radio listeners in Wales by location (52% in urban areas vs. 43% in rural areas).

Figure 3.6 Ownership of DAB digital radios

Source: Ofcom Technology Tracker, H1 2016
Base: Adults aged 16+ who listen to radio (n = 2832 UK, 399 Wales, 1693 England, 384 Scotland, 356 Northern Ireland, 192 Wales urban, 207 Wales rural, 854 Wales 2010, 397 Wales 2011, 405 Wales 2012, 383 Wales 2013, 403 Wales 2014, 406 Wales 2015, 399 Wales 2016)
NB. Data in 2011 based on those who listen to radio and have any radio sets in the household that someone listens to in most weeks.
QP9: How many DAB sets do you have in your household?

Just over one in ten radio listeners in Wales without a DAB set say they are likely to buy one within the next year

Just over one in ten (11%) of the adults in Wales who listen to radio and do not have a DAB set say they are likely to get one in the next 12 months. This figure does not differ from that for the UK as a whole (13%) and does not vary significantly by location in Wales.

There has been no change in the likelihood of buying a DAB set since 2015.

Figure 3.7 Likelihood of purchasing a DAB radio within the next year

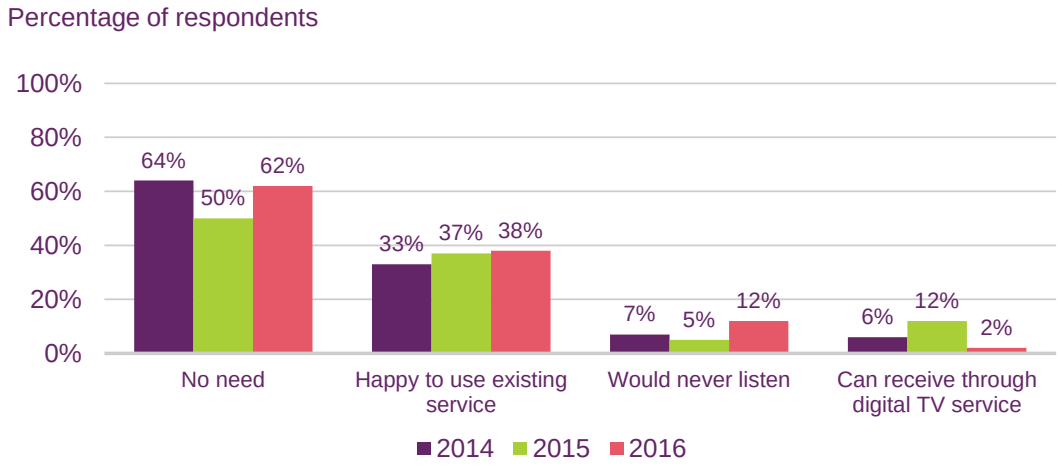
Source: Ofcom Technology Tracker, H1 2016
Base: Adults aged 16+ who listen to radio and do not have a DAB set (n = 1593 UK, 212 Wales, 870 England, 236 Scotland, 275 Northern Ireland, 94 Wales urban, 118 Wales rural, 594 Wales 2010, 207 Wales 2011, 273 Wales 2012, 269 Wales 2013, 246 Wales 2014, 228 Wales 2015, 212 Wales 2016).
**Caution: Low base.*
QP12: How likely is it that your household will get a DAB radio in the next 12 months?
NB. Data in 2011 based on those who listen to radio, do not have a DAB set and have any radio sets in the household that someone listens to in most weeks.

Three in five radio listeners in Wales without a DAB set say they are not likely to buy one within the next year because they have no need

Radio listeners stating they were unlikely to get DAB radio in the next 12 months were asked to say – without prompting - why they were unlikely to do so. Six in ten (62%) said it was because they did not need it, while more than one in three (38%) said it was because they were happy using an existing service. Around one in ten stated that they would never listen to it (12%).

Since 2015, there has been a decrease in the proportion of people saying they were unlikely to get a DAB radio because they could receive digital radio through their TV service (2% vs. 12% in 2015).

Figure 3.8 Reasons why unlikely to purchase DAB in the next year



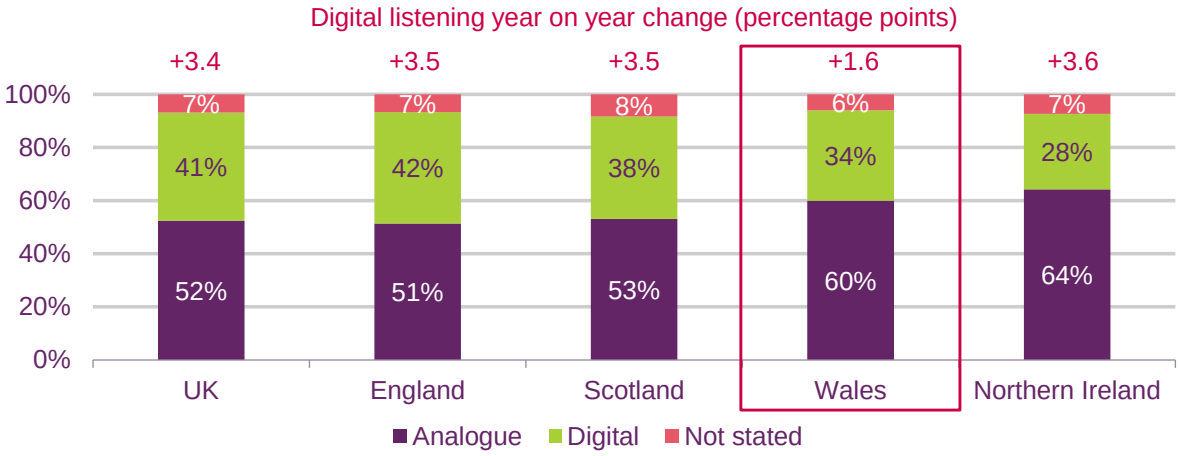
Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ who listen to radio and are unlikely to get DAB radio in the next 12 months (Wales 2014 = 182; Wales 2015 = 166; Wales 2016 = 167)
Responses shown for spontaneous mentions by 5% or more at a UK level.
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales 2015 and 2016.
QJ14: Why are you unlikely to get digital radio in the next 12 months?

Just over one-third of listening was through digital platforms[10] in 2015

Digital's share of listening in Wales was 34% in 2015, 7pp lower than the UK average. Analogue listening still accounts for six in ten of total listening hours; with the exception of Northern Ireland, this is the highest across all the UK nations. Year-on-year growth in digital's share of listening was also lowest in Wales in 2015. This was 1.6pp, whereas the UK average was 3.4pp, and for all other nations was above 3pp.

[10] DAB, digital television and the internet.

Figure 3.9 Share of listening hours via digital and analogue platforms: 2015

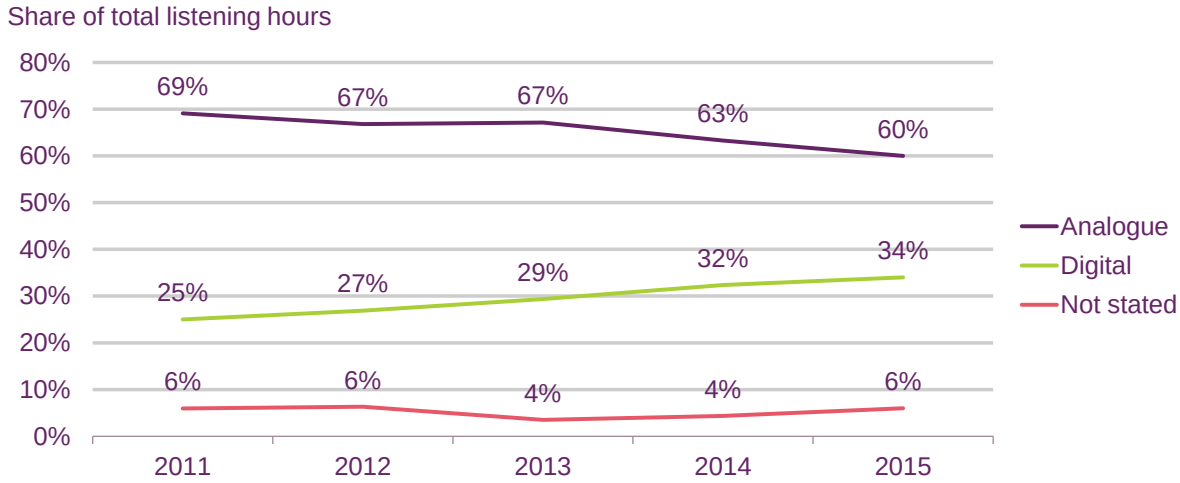


Source: RAJAR, All adults (15+), year ended Q4 2015

Growth in digital's share of listening has been steady since 2011

Digital's share of listening has increased by 9pp since 2011. The highest rate of growth over these years was in 2014 (3.0pp). The largest declines in analogue share of listening have been in the past two years: it fell by 4pp in 2014 and by 3pp in 2015.

Figure 3.10 Share of listening hours via digital and analogue platforms in Wales: 2011-2015



Source: RAJAR, all adults, calendar years 2011-2015

3.6 The radio industry

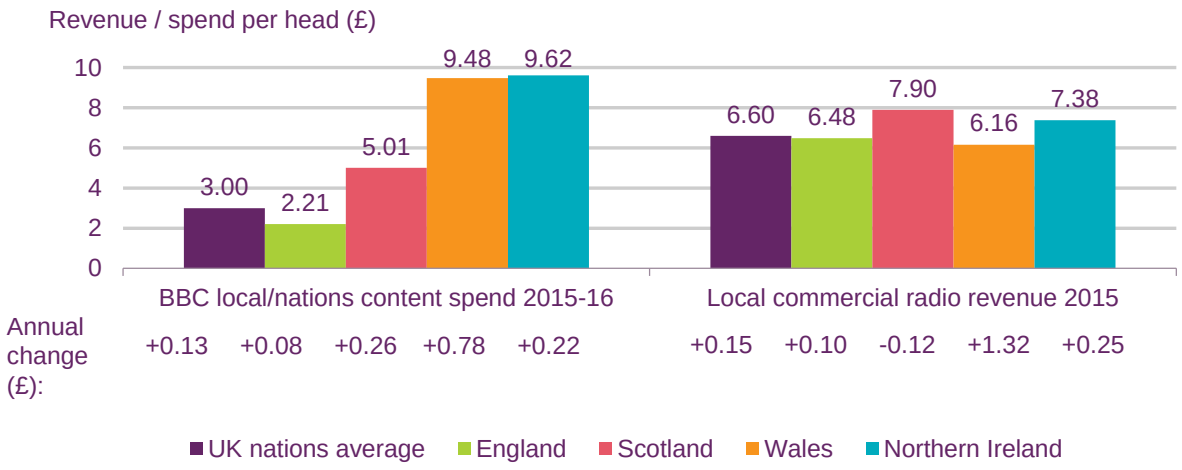
Local commercial radio revenue in Wales grew by 9.4% in 2015

Wales had the highest growth in local commercial radio revenue of any UK nation in 2015. On a per-capita basis, revenues increased by £1.32. Despite this high growth, Wales still has the smallest local commercial revenue per head of population of any UK nation, and is the only nation apart from England with revenues per capita lower than the UK average.

The greatest year-on-year increase in content spend by the BBC on local/nations' radio was in Wales. Content spend on BBC Radio Wales increased by 7.1%, and 10.9% more was

spent on BBC Radio Cymru. On a per-capita basis, Wales has the second highest level of BBC spend, and it increased by 78p per head of population in 2015-16.

Figure 3.11 Local/nations' radio spend and revenue per head of population: 2015



Source: Broadcasters
Note: The UK total shows the average for local commercial radio across the four nations and therefore excludes services broadcast UK-wide

4 Telecoms and networks

4.1 Recent developments in Wales

Superfast Cymru

Superfast Cymru, a programme funded by the Welsh Government, the UK Government, the European Regional Development Fund and BT, is bringing superfast broadband to homes and businesses in Wales, in areas where there are currently no plans for commercial roll-out. The programme had provided superfast broadband to 610,875[11] premises as of the end of June 2016. Ofcom's *Connected Nations 2015* report found that superfast broadband[12] availability in Wales had increased from 55% of premises in June 2014 to 79% of premises in June 2015.

In July 2015, the Welsh Government announced an extension to the Superfast Cymru project to cover an additional 42,000 premises in Wales. As a result of an extra £19m investment by BDUK, the European Regional Development Fund (ERDF) and BT, the programme will now run until summer 2017.As part of the extension of the project, the Welsh Government signed a contract with high-speed wireless broadband specialists Airband in July 2015 to connect nearly 2,000 of the extra premises in business parks across Wales.

Additionally, the Minister for Skills and Science, Julie James AM, announced in January 2016 the Welsh Government's decision to extend two of its schemes to improve broadband availability. The Access Broadband Cymru (ABC) and the Ultrafast Connectivity Voucher schemes will now run for a further two years until March 2018.

Access Broadband Cymru

The Access Broadband Cymru (ABC) scheme offers subsidies to support households and businesses that are unable to receive a consistent broadband connection of 2Mbit/s or above. There are two levels of funding available depending on the speed required - £400 for download speeds of 10Mbps and above and £800 for 30Mbps and above. A range of technologies will be used to deliver superfast speeds including satellite, wireless and 4G. Satellite Internet, a specialist satellite internet service provider (ISP), recently announced its support for the scheme as a registered supplier. Wales also has a number of companies providing point-to-point wireless broadband including TFL, ResQ and Bluewave

Ultrafast Connectivity Voucher Scheme

In January 2016 it was announced that the Ultrafast Connectivity Voucher Scheme would be extended to all businesses in Wales, not just those located in the Enterprise and Local Growth Zones, as had been the case previously. This scheme was launched in November 2014 to help businesses meet the capital costs involved in the installation of ultrafast broadband services.[13] It offers a maximum grant of £10k.

[11] The number of premises tested and verified by the Welsh government
[12] Connections with actual speeds of 30Mbit/s or higher.
[13] Connections which are able to achieve at least 100Mbit/s download speed and 30Mbit/s upload speed

G.fast trials in Swansea

More than 100 homes in Swansea are currently involved in technical trials of G.fast technology, conducted by BT and Alcatel-Lucent. G.fast promises to deliver speeds of more than 300Mbit/s over copper wire and is described as a stepping stone between fibre to the cabinet (FTTC) and fibre to the premises (FTTP). The trials are helping to gauge how the technology performs and how it could be delivered to Wales and the UK in the future.

Superfast Broadband Exploitation Programme

The £12.5m five-year Wales-wide programme is funded by the Welsh Government, local authorities, the ERDF (£7m) as well as academic and private sources. The programme aims to support mainly small and medium enterprises to understand the superfast infrastructure and to take advantage of the latest technology. The programme has both regional and nation-wide delivery plans, and provides businesses with targeted information, telemarketing engagement, online tools, access to workshops and one-to-one support.

Spectrum Internet

Spectrum Internet has extended the deployment of its dark fibre to bring FTTP services to multi-tenant office buildings across south Wales; more than 200 businesses are now receiving synchronous 100Mbit/s and 1Gbit/s broadband connections in areas including Cardiff and Treforest as well as Bridgend and Carmarthen. The company is also installing FTTP at the St Athan Enterprise Zone, the location chosen by Aston Martin for production of the DBX. In addition, it has further developed its network in rural Monmouthshire, using the method of micro-trenching to deploy dark fibre.

UK Government Mobile Infrastructure Project

The closure of the UK Government's £150m Mobile Infrastructure Project was announced in October 2015. This project was set up to bring mobile coverage to not-spots around the UK and was intended to run until March 2016, building 600 masts across the UK, with 132 of these in Wales. The project had been awarded to Arqiva, working with the four MNOs.

Of the Wales sites, 63 were classified as being too difficult or costly to resolve, and of the 69 sites, where a transmission solution was possible, only nine were completed. Abernant in Carmarthenshire, and Felindre, Swansea were the only two completed sites where all MNOs has installed network equipment; Llangwyryfon, Haverfordwest and Llanfynydd were completed with at least one MNO's equipment being present, and Carmarthen, Ystrad Meurig and Kington are yet to go live.

4.2 Availability of fixed broadband services

Basic broadband services are available to almost all premises in Wales

Three main technologies are used to provide fixed broadband services in the UK: exchange-based ADSL, cable (over a hybrid fibre-coaxial network) and fibre to the cabinet (using VDSL from the street cabinet).[14] Of these three technologies, ADSL is the most widely available, partly because it is the cheapest to deploy as it uses the existing copper telephony network to transmit data to the end-user. In most cases it does not require an upgrade to the existing copper access network, and the only costs are associated with the installation of the new equipment in the local exchange and the end-user's premises. By comparison, cable and fibre roll-out both involve the deployment of new infrastructure to connect local exchanges/nodes to the end-user.

BT has around 5,600 local exchanges across the UK (of which over 400 are in Wales), and almost all of these have been upgraded to offer ADSL broadband services. Across the UK as a whole, 99.98% of premises (i.e. homes and offices) were connected to an ADSL-enabled exchange by the end of 2015 (Figure 4.1). In Northern Ireland and Wales, all the BT local exchanges had been upgraded to offer ADSL broadband services, while in England and Scotland there remain a small number of exchanges that are not ADSL-enabled.

It is important to note that some premises in ADSL-enabled areas may not be able to receive broadband services, or may only be able to access very low speeds. Potential reasons for this include the long length, or poor quality, of the copper telephone line from the premises to the local exchange.

What is local loop unbundling (LLU)?

Local loop unbundling (LLU) operators are able to offer fixed broadband services by placing their own equipment in the incumbent provider's local exchange. This equipment is then connected to the LLU provider's backhaul network and ADSL broadband services are provided over the copper lines from the exchange to the end user; these lines are leased from the incumbent provider. LLU operators are able to benefit from economies of scale that are not available when purchasing wholesale services on a per-unit basis, and are better able to differentiate their services from those offered by their competitors. Similarly, consumers living in LLU-enabled exchange areas have a greater choice of ADSL broadband services and, typically, access to lower-cost (particularly bundled) broadband services.

By the end of 2015, 95% of UK premises were served by unbundled local exchanges (a small increase compared to the previous year). As there are a larger number of premises to be served in urban areas, roll-out of any fixed telecoms network tends to be concentrated there, at least initially. This is reflected in the fact that almost all premises in urban areas (over 99%) were connected to an unbundled local exchange at the end of 2015. In rural areas, 77% of premises were connected to an unbundled local exchange by the end of 2015. England had the highest proportion of premises connected to an unbundled local exchange at the end of 2015, at 96%, followed by Wales with 93% availability and then Scotland and Northern Ireland (both 90%).

[14] A small proportion of premises are also served by fibre to the premises (FTTP).

Figure 4.1 Proportion of premises connected to ADSL-enabled and unbundled exchanges

Source: Ofcom / BT, December 2015 data

Ninety-one per cent of premises in Wales were able to receive broadband services with speeds of 10Mbit/s or higher in June 2016

In 2015, the UK Government announced its intention to establish a 10Mbit/s universal service obligation (USO) for fixed broadband services. Data provided to Ofcom by fixed broadband providers[15] show that by June 2016, 95% of UK premises were able to receive broadband speeds of 10Mbit/s or higher, up from 92% a year previously. As with basic broadband services, availability was higher in urban areas, with 98% of urban premises able to receive speeds of 10Mbit/s and above, compared to 76% in rural areas.

In June 2016, Wales and Northern Ireland had the joint lowest proportion of premises able to receive broadband speeds of 10Mbit/s or higher, among the UK nations, at 91%. Availability in Wales had increased by two percentage points compared to a year previously.

[15] This analysis is a preliminary assessment of coverage and is based on data from a limited number of national and larger regional providers. We are continuing to analyse the data we have received, including integrating data from additional, smaller providers, and our final assessment of coverage will be published in the *Connected Nations Report* later this year.

Figure 4.2 Proportion of premises able to receive broadband services at 10Mbit/s speeds and above

Source: Ofcom / operators, June 2016 data
Note: UK urban and rural figures are not comparable to those published in the 2015 report due to a change in the urban/rural classifications.

Wales had the second highest proportion of premises that could receive superfast, or higher, broadband speeds, among the UK nations, in June 2016

When collecting data to inform its work in monitoring the UK's communications market infrastructure in 2016, Ofcom asked operators to provide data regarding the proportion of premises that could receive superfast, or higher, fixed broadband speeds,[16] i.e. a fixed broadband service with an actual speed of 30Mbit/s or higher.

It is important to note that not all cable and fibre broadband connections are capable of providing superfast broadband services. For example, the speed achievable on a fibre-to-the-cabinet (FTTC) line will depend on the length and quality of the copper connection from the street cabinet to the user's premises (as is the case with ADSL).

As shown in Figure 4.3 below, the proportion of premises that were able to receive superfast or higher broadband services in the UK was 88% in June 2016. This represented an increase of five percentage points compared to a year previously. Availability was much higher in urban areas, with 93% of urban premises being able to receive superfast or higher broadband, compared to 58% in rural areas. In Wales 85% of premises could receive superfast or higher broadband by June 2016, the second highest proportion among the UK nations, up from 79% in June 2015.

The UK Government defines superfast broadband as having download speeds of 24Mbit/s or higher. We would expect the coverage of services at these speeds to be higher than the 88% of UK premises that are able to receive speeds of 30Mbit/s or more.

[16] This analysis is a preliminary assessment of coverage and is based on data from a limited number of national and larger regional providers. We are continuing to analyse the data we have received, including integrating data from additional, smaller providers, and our final assessment of coverage will be published in the *Connected Nations Report* later this year.

Figure 4.3 Proportion of premises able to receive superfast or higher broadband services

Source: Ofcom / operators, June 2016 data
Note: UK urban and rural figures are not comparable to those published in the 2015 report due to a change in the urban/rural classifications.

4.3 Mobile network coverage

Overview

Mobile network availability varies across the UK, with some areas (known as 'mobile not-spots') having no mobile coverage. These areas are often characterised by low population density and/or hilly terrain, which present physical and economic obstacles and deter mobile network operators (MNOs) from deploying mobile network infrastructure. Other areas (known as 'partial not-spots') have mobile coverage but only from some of the UK's four operators.

How we measure the availability of mobile telephony for this report

The coverage information presented in Ofcom's *Communications Market Reports* and the *Connected Nations* report is collected by Ofcom from the four UK mobile network operators (MNOs). Information on coverage is provided by each operator for each 100m x100m 'pixel' of landmass across the UK. This information is then correlated with maps of premises to give the premises coverage figures.

The signal strength thresholds used by Ofcom to determine where 2G, 3G and 4G mobile services are available differ from those used in last year's reports. As such, the mobile coverage data in this report are not comparable to those published last year. These thresholds may also differ from the ones used by MNOs in their reporting. UK urban and rural figures are also not comparable to those published in the 2015 report due to a change in the urban/rural classifications.

The availability figures in this report all refer to outdoor coverage. Coverage figures for indoor reception are likely to be lower because radio signals are weakened as they pass through the fabric of buildings. Indoor reception is highly dependent on the building, as well as the user's location in the building, making it difficult to calculate accurate indoor coverage figures.

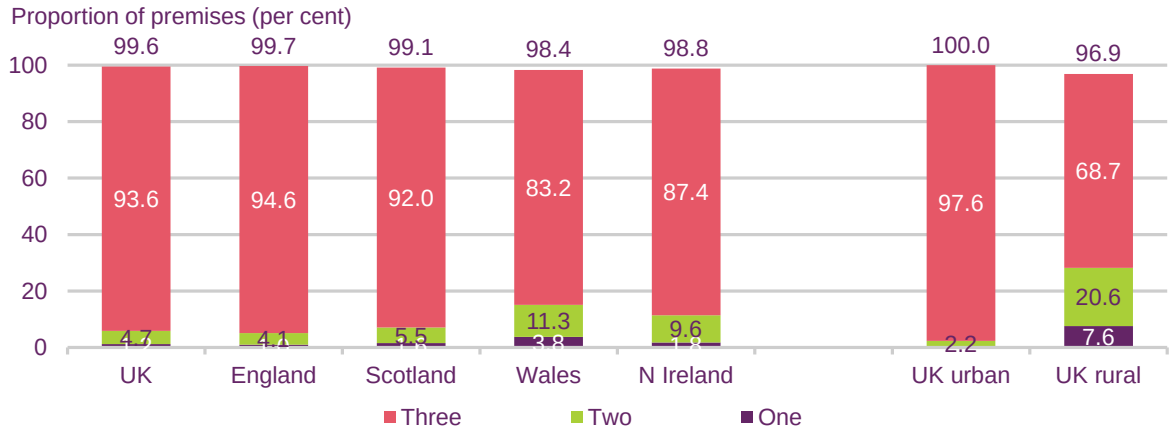
Figure 4.1Figure 4.4, Figure 4.5, and Figure 4.60 show coverage levels for 2G, 3G and 4G mobile services respectively.[17] 2G is considered satisfactory for telephone calls and text messaging, while 3G is considered the minimum required to access mobile data services. 4G generally provides a better user experience than 3G when accessing mobile data, as it offers faster download and upload speeds.

Wales had the lowest proportion of premises with outdoor 2G coverage in May 2016

Data provided to Ofcom by the UK's three national 2G mobile network operators (Vodafone, O2 and EE) show that by May 2016, 99.6% of UK premises were in areas with 2G coverage from at least one network, and around 0.4% of UK premises were in areas without any 2G coverage at all. The data shows that most UK premises (93.6% of the total) were in areas with outdoor 2G coverage from all three providers. The proportion of UK premises in areas with outdoor 2G mobile coverage in May 2016 was higher in urban locations (100.0%) than in rural ones (96.9%).

In Wales, the proportion of premises in areas with outdoor 2G coverage from at least one network in May 2016 was 98.4%, the lowest proportion across the UK nations. Wales also had the lowest proportion of premises with outdoor coverage from all three national 2G networks, at 83.2%. One of the likely reasons for the lower-than-average 2G coverage in Wales is its hilly terrain, which restricts the propagation of mobile signals.

Figure 4.4 Outdoor 2G premises mobile coverage, by number of operators



Source: Ofcom / operators, May 2016 data
Notes: Coverage is based on 100m² pixels covering the UK; UK urban and UK rural figures are not comparable to those published in the 2015 report due to a change in the urban/rural classifications used to calculate them.

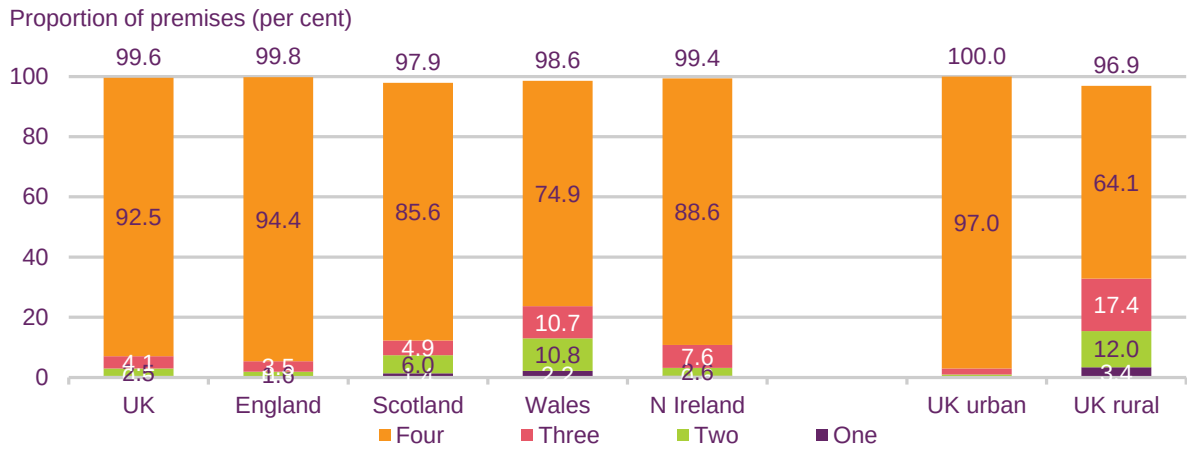
In Wales, 98.6% of premises were in areas with outdoor 3G coverage in May 2016

Data provided to Ofcom by the UK's four national 3G mobile network operators (the three national 2G providers plus Three) show that 99.6% of UK premises had outdoor coverage from at least one 3G network in May 2016, while 92.5% had outdoor coverage from all four 3G providers. The proportion of premises in areas with outdoor 3G coverage was higher in urban areas of the UK (100%) than in rural areas (96.9%).

[17] The availability data provided by the MNOs is taken from network planning tools, which are subject to a margin of error. Local factors such as tall buildings or trees can also affect signal strength.

In Wales, 98.6% of households had 3G coverage from at least one provider in May 2016. The proportion of premises in Wales with outdoor coverage from all four 3G networks was 74.9%, the lowest across the UK nations.

Figure 4.5 Outdoor 3G premises mobile coverage, by number of operators



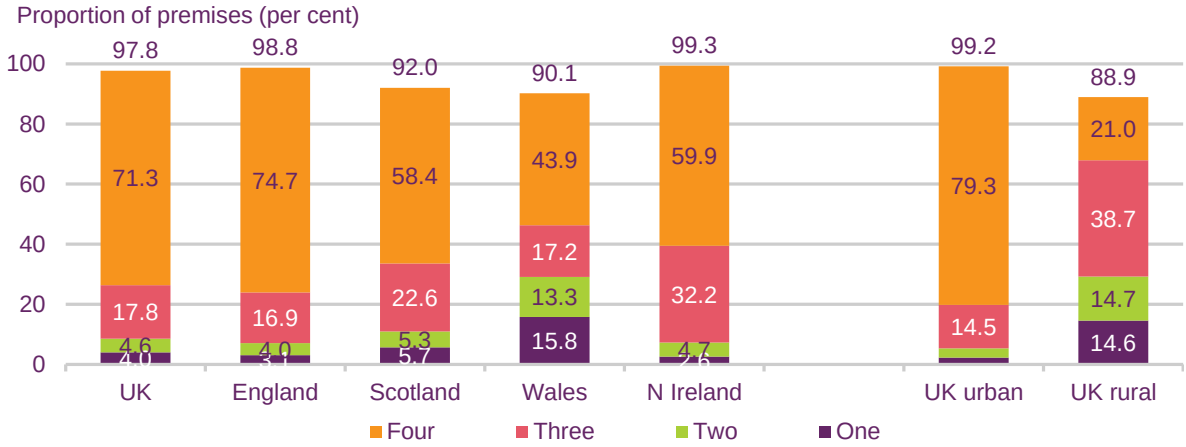
Source: Ofcom / operators, May 2016 data
Note: Coverage is based on 100m² pixels covering the UK; UK urban and UK rural figures are not comparable to those published in the 2015 report due to a change in the urban/rural classifications used to calculate them.

Over 90% of premises in Wales were in areas with outdoor 4G coverage in May 2016

The deployment of 4G mobile services has progressed rapidly in recent years, and 97.8% of UK premises were in areas with outdoor 4G mobile coverage from at least one national mobile network operator in May 2016. Similarly, the proportion of UK premises able to receive outdoor coverage from all four national MNOs was 71.3%. The difference between urban and rural 4G coverage was much more marked for 4G services than for 2G and 3G, with 99.2% of urban premises having outdoor 4G coverage, compared to 88.9% of those in rural areas.

Wales had the lowest proportion of premises with outdoor 4G coverage from one or more mobile networks in May 2016, at 90.1%. The proportion of premises in Wales with outdoor coverage from all four 4G networks was 43.9%, an increase of 23.9 percentage points compared to the previous year.

Figure 4.6 Outdoor 4G premises mobile coverage, by number of operators



Source: Ofcom / operators, May 2016 data
Note: Coverage is based on 100m² pixels covering the UK; UK urban and UK rural figures are not comparable to those published in the 2015 report due to a change in the urban/rural classifications used to calculate them.

4.4 Service take-up

Take-up of communication services in Wales was in line with UK averages in 2016

Take-up of landline and broadband services in Wales was broadly consistent with levels in the UK as a whole in 2016. As in 2015, adults in Wales were more likely than the UK average to have a tablet computer in their household (67% vs. 59%). While overall mobile phone take-up in Wales was in line with that in the UK (91% in Wales vs. 93% UK), smartphone ownership in Wales was lower (65% vs. 71%).

There were some significant differences in service and device take-up between urban and rural areas of Wales. Adults in urban areas were more likely than those in rural areas to have a tablet computer at home (69% vs. 59%) and to go online using a mobile phone (63% vs. 53%). Take-up of a 4G service was also lower in rural areas, at 28%, compared to 49% in urban areas.

Figure 4.7 Take-up of communications services: 2016

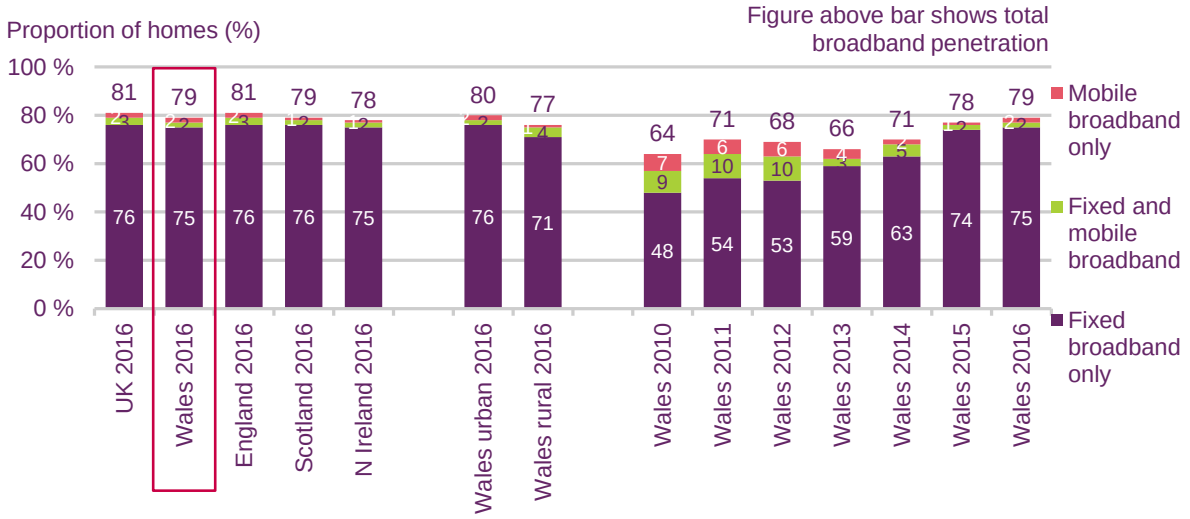
		UK	Wales	England	Scotland	N Ireland	Wales urban	Wales rural
Individual								
Voice telephony	Fixed Line	**86%**	85%	86%	86%	86%	85%	84%
	Mobile phone	**93%**	91%	94%	91%	92%	90%	94%
	Smartphone	**71%**	65% ↓	71%	70%	72%	67%	59%
Internet	Computer (any type)	**84%**	85%	85%	79%	80%	86%	80%
	Tablet computer	**59%**	67% ↑	59%	56%	60%	69% ↑	59%
	Total Internet[1]	**86%**	84%	87%	84%	83%	84%	82%
	Broadband (fixed and mobile)[2]	**81%**	79%	81%	79%	78%	80%	77%
	Fixed Broadband	**79%**	77%	79%	78%	77%	78%	76%
	Mobile Broadband (via dongle/SIM)[3]	**4%**	4%	5%	3%	3%	3%	5%
	Web access on mobile phone[4]	**66%**	61%	66%	63%	69%	63% ↑	53%
	4G service	**48%**	44%	48%	40%	54%	49%	28% ↓

Source: Ofcom Technology Tracker, H1 2016
Notes: [1] Households with an internet connection of any description; [2] Households with a fixed broadband and/or dedicated mobile broadband (dongle/SIM) data connection (excludes households that solely use a mobile handset/s to access the internet); [3] Households that use a dedicated mobile broadband (dongle/SIM) data connection to access the internet (excludes households that solely use a mobile handset/s to access the internet); [4] Households that use a mobile handset/s to access the internet (may also have any other type of internet access).
Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland, 240 Wales urban, 249 Wales rural)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016 and between Wales urban and rural in 2016.
QC1: Is there a landline phone in your home that can be used to make and receive calls?/ QD2: Do you personally use a mobile phone?/ QD4: Do you personally use a smartphone?/ QD6: Do you have a 4G service?/ QE1: Does your household have a PC or laptop computer?/ QE2: Do you or does anyone in your household have access to the internet at home?/ QE9: Which of these methods does your household use to connect to the Internet at home?/ QD28A: Which if any, of the following activities, other than making and receiving voice calls, do you use your mobile for?

Total broadband penetration has remained unchanged in Wales since last year

As shown in Figure 4.8, total broadband penetration for households in Wales (79%) was consistent with that for the UK as a whole, with no change in total broadband take-up in Wales since 2015. The proportion of households in Wales using solely a fixed broadband service in 2016 was also in line with the rest of the UK (75% and 76% respectively). There has been no significant change in this incidence among households in Wales since 2015, following an 11 percentage point increase between 2014 and 2015. There was also no significant difference between urban and rural areas in the take-up of broadband by connection type.

Figure 4.8 Overall household broadband take-up, by connection type



Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland, 240 Wales urban, 249 Wales rural, 1075 Wales 2010, 493 Wales 2011, 513 Wales 2012, 492 Wales 2013, 491 Wales 2014, 496 Wales 2015, 489 Wales 2016)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016, between Wales urban and rural in 2016 and between Wales 2015 and 2016.
QE9: Which of these methods does your household use to connect to the internet at home?

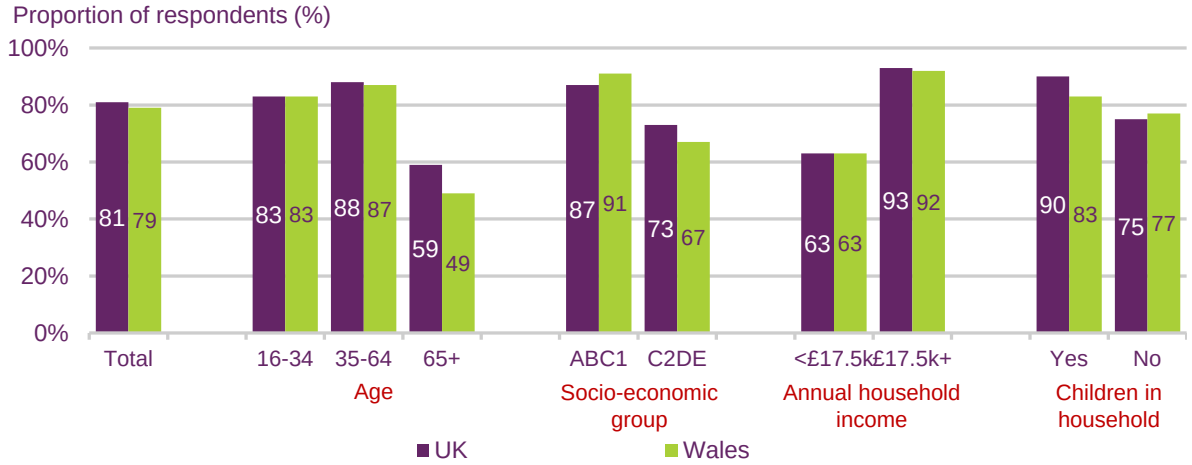
Take-up of broadband in Wales is in line with the UK overall

As shown in Figure 4.9, there was no significant difference between broadband take-up[18] in Wales and in the UK as a whole in 2016 (79% and 81% respectively). There were also no significant differences between Wales and the UK for the different demographic groups shown in the chart.

However, within Wales there were differences in broadband take-up by age, socio-economic group and household income. Adults aged 65 and over were less likely than younger age groups to have broadband. Broadband take-up was higher among ABC1 adults (91%) than among those in C2DE socio-economic groups (67%), and there was a 29 percentage point difference in broadband take-up levels between adults with a household income below £17.5k (63%) and those with a household income above £17.5k (92%).

[18] This figure includes fixed and dedicated mobile broadband (via dongle/SIM) access but excludes access on mobile handsets.

Figure 4.9 Overall broadband take-up in Wales, by demographic



Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ (n =489 Wales, 134 16-34s, 226 35-64s, 129 65+, 261 ABC1, 227 C2DE, 134 <£17.5k income, 109 £17.5k+, 157 children in home, 332 no children in home)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016 for each measure.
QE9: Which of these methods does your household use to connect to the internet at home?

Six in ten adults in Wales had been online using their mobile phone in the previous week

Six in ten adults in Wales said they had used their mobile phone to access the internet in 2016, with almost all of those respondents saying they had done so in the previous week. These figures were in line with those for the UK as a whole, and were largely unchanged since 2015. In 2016, adults in urban Wales were more likely than those in rural areas to say they had used their mobile phone to go online (63% vs. 53%).

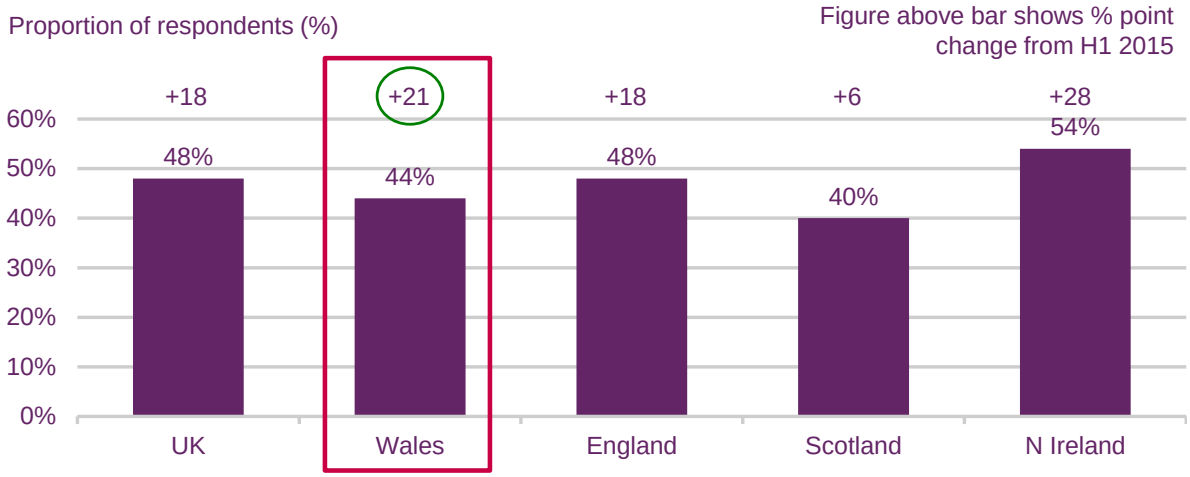
Figure 4.10 Proportion of adults who have used a mobile phone to access the internet

Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland, 249 Wales urban, 247 Wales rural, 1075 Wales 2010, 493 Wales 2011, 513 Wales 2012, 492 Wales 2013, 491 Wales 2014, 496 Wales 2015, 489 Wales 2016)
QD28A-B. Which, if any, of the following activities, other than making and receiving calls, do you use your mobile for?/ And which of these activities have you used your mobile for in the last week?

The proportion of 4G users in Wales is up by 21 percentage points since 2015

More than four in ten (44%) adults in Wales reported that they had a 4G mobile service in 2016, broadly consistent with the UK overall figure of 48%. In the year to 2016, the proportion of adults in Wales with a 4G service increased by 21 percentage points, up from 23% in 2015. This is probably due to the increased availability of 4G services (see Figure 4.110).

Figure 4.11 4G take-up, by nation



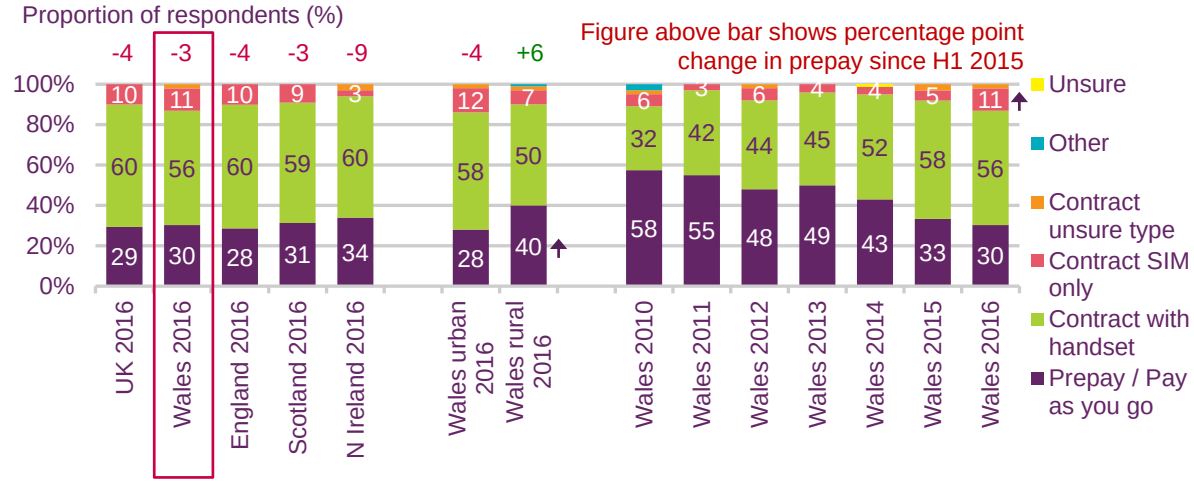
Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016. A circle around the +/- figure above the chart indicates any significant difference between 2015 and 2016 for Wales.
QD41. Do you have a 4G service? This is a service that enables faster mobile internet access

Compared to 2015, adults in Wales with a mobile phone are more likely to be on a SIM-only contract

In 2016, more than half (56%) of mobile users in Wales said they 'most often' used a pay-monthly contract package (with handset), while three in ten used a pre-pay phone, both in line with the UK averages. Among mobile users in Wales, there was an increase since 2015 in mobile users with a SIM-only package (11% vs. 5%).

In 2016, mobile users in rural areas were more likely than those in urban areas to say they mostly used a pre-pay phone (40% vs. 28%), with no other significant differences in type of mobile phone package by location.

Figure 4.12 Type of mobile subscription

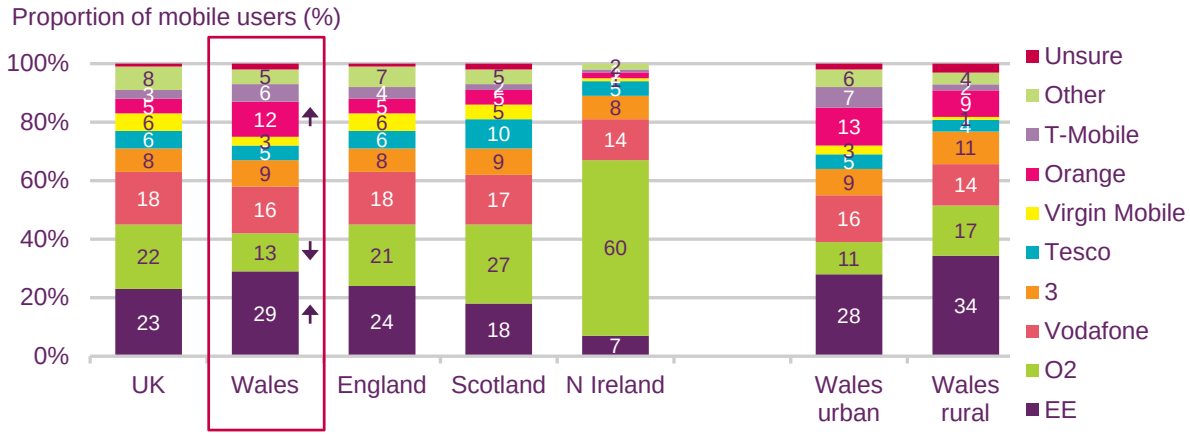


Source: Ofcom Technology Tracker, H1 2016
Base: Adults aged 16+ who personally use a mobile phone (n = 3425 UK, 445 Wales, 2083 England, 451 Scotland, 446 Northern Ireland, 216 Wales urban, 229 Wales rural, 923 Wales 2010, 416 Wales 2011, 456 Wales 2012, 440 Wales 2013, 438 Wales 2014, 439 Wales 2015, 445 Wales 2016)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016, between Wales urban and rural in 2016 and between Wales 2015 and 2016. Circles around the +/- figures above the chart indicate any significant difference between 2015 and 2016 for Wales, urban and rural.
QD11: Which of these best describes the mobile package you personally use most often?

Respondents in Wales say that EE is the mobile network provider they use most often

Twenty-nine per cent of mobile users in Wales said EE was the network they used most often, compared to just under a quarter across the UK as a whole. In Wales this was followed by Vodafone (16%) and O2 (13%), although mobile users in Wales were less likely than all UK mobile users to use O2 (13% vs. 22%).

Figure 4.13 Mobile network provider used most often

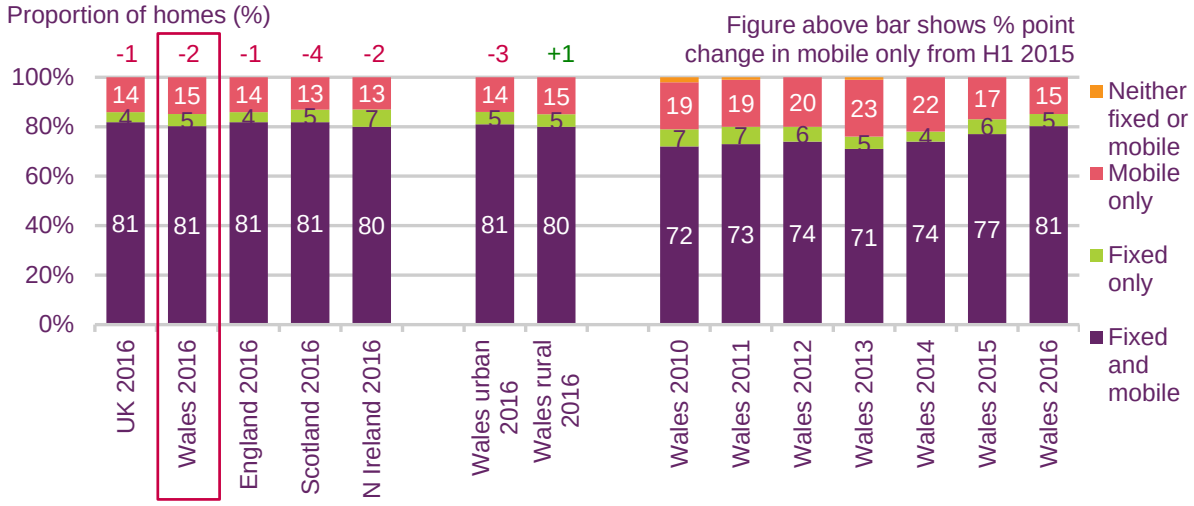


Source: Ofcom Technology Tracker, H1 2016
Base: Adults aged 16+ who personally use a mobile phone (n = 3425 UK, 445 Wales, 2083 England, 451 Scotland, 446 Northern Ireland, 216 Wales urban, 229 Wales rural)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016 and between Wales urban and rural in 2016.
QD10: Which mobile network do you use most often?

The number of mobile-only households in Wales remains unchanged since 2015

Four in five households in Wales had both fixed and mobile telephone services in 2016. Five per cent of households had access to a fixed line only, and 15% had access to a mobile phone only. There were no significant changes in any of these figures since 2015.

Figure 4.14 Cross-ownership of household telephony services



Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland, 240 Wales urban, 249 Wales rural, 1075 Wales 2010, 493 Wales 2011, 513 Wales 2012, 492 Wales 2013, 491 Wales 2014, 496 Wales 2015, 489 Wales 2016)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016, between Wales urban and rural in 2016 and between Wales 2015 and 2016. Circles around the +/- figures above the chart indicate any significant difference between 2015 and 2016 for Wales, urban and rural.
QC1: Is there a landline phone in your home that can be used to make and receive calls?/ QD1: How many mobile phones in total do you and members of your household use?

4.5 Satisfaction with telecoms services

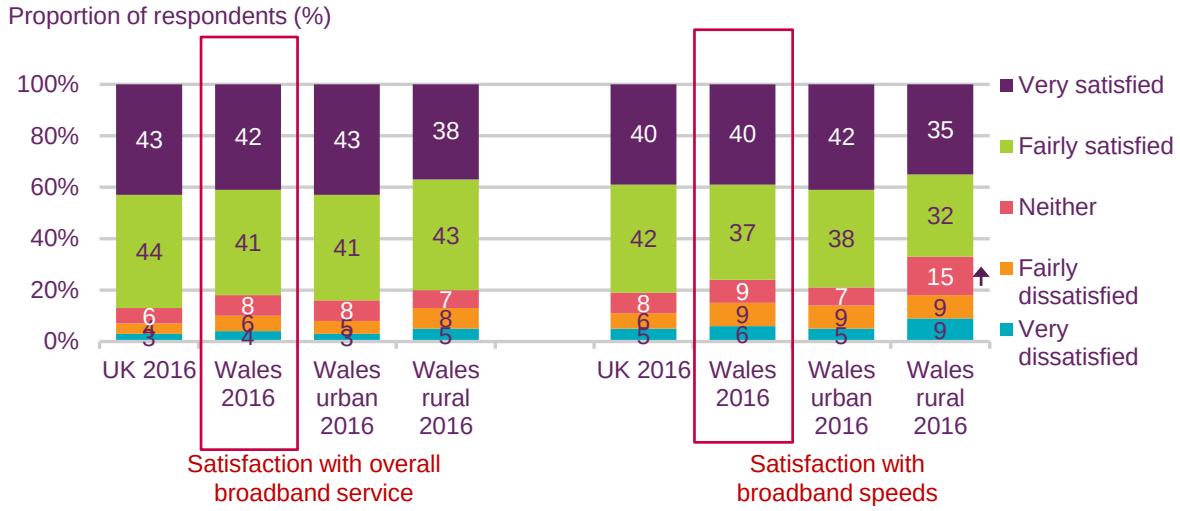
Rural internet users in Wales are less likely than those in urban areas to be satisfied with fixed broadband speeds

More than eight in ten broadband users in Wales (83%) were either 'very' or 'fairly' satisfied with their overall broadband service in 2016. This figure is comparable to the UK as a whole (87%). Conversely, a significantly lower proportion of mobile users were either 'very' or 'fairly' dissatisfied with the overall service in Wales, also comparable to the UK as a whole (9% vs. 7% in the UK). Compared to a year ago, there was no significant change in overall levels of satisfaction with fixed broadband services in Wales, or in the UK overall.

Satisfaction with fixed broadband speeds in Wales was also comparable to the UK as a whole, with no significant change in this measure in Wales, or in the UK overall, between 2015 and 2016.

Although there was no significant difference in overall satisfaction with broadband services in rural and urban areas of Wales, urban users were more likely than rural users to say they were satisfied with their broadband speed (80% vs. 66%). This difference was also observed in 2015. In comparison, rural users were more likely to be neutral when asked about satisfaction with broadband speeds (15% vs 7%).

Figure 4.15 Satisfaction with overall service and speed of fixed broadband connection



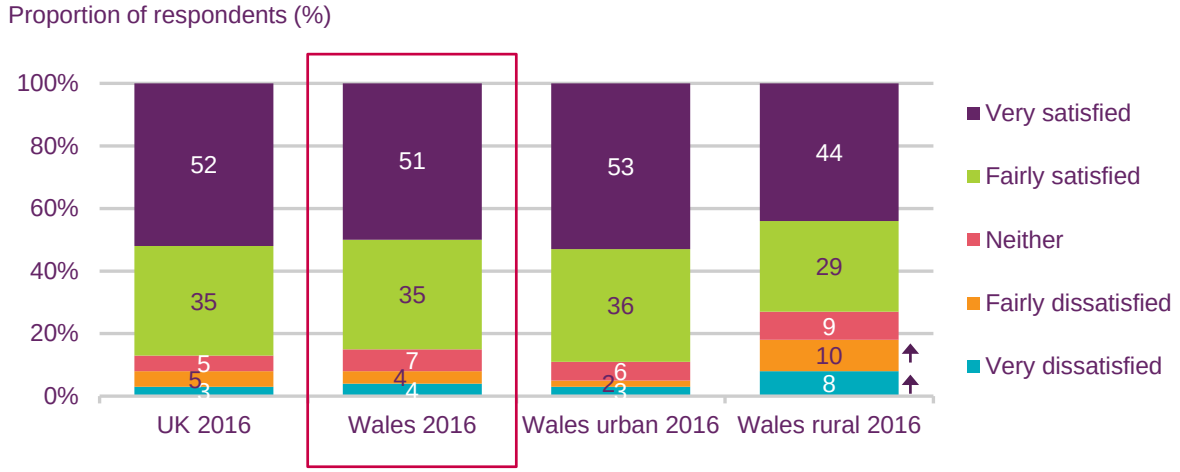
Source: Ofcom Technology Tracker, H1 2016
Base: Adults aged 16+ with a fixed broadband connection at home (n = 2774 UK, 363 Wales, 183 Wales urban, 180 Wales rural)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016 and between Wales urban and rural in 2016.
QE8A/B: Thinking about your fixed broadband internet service, how satisfied are you with (main supplier) for the overall service/ for the speed of your service while online (not just the connection)?

Satisfaction with mobile phone reception is lower among mobile phone users in rural areas of Wales

Almost nine in ten (86%) mobile phone users in Wales were 'very' or 'fairly' satisfied with their mobile phone reception in 2016, while only 8% of users said they were 'very' or 'fairly' dissatisfied. Overall satisfaction levels in Wales were in line with the UK as a whole (87%) and unchanged since 2015.

As in 2015, users in urban areas were more likely than those in rural areas to say they were satisfied with their mobile reception (89% vs. 73%). Conversely, rural users were more likely to be dissatisfied (18% vs. 5%).

Figure 4.16 Satisfaction with reception of mobile service



Source: Ofcom Technology Tracker, H1 2016
Base: Adults aged 16+ who personally use a mobile phone (n = 3425 UK, 445 Wales, 216 Wales urban, 229 Wales rural,)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016, between Wales urban and rural in 2016.
QD21J: Thinking about your mobile phone service only, how satisfied are you with (main supplier) for reception/ accessing network?

5 Internet and online content

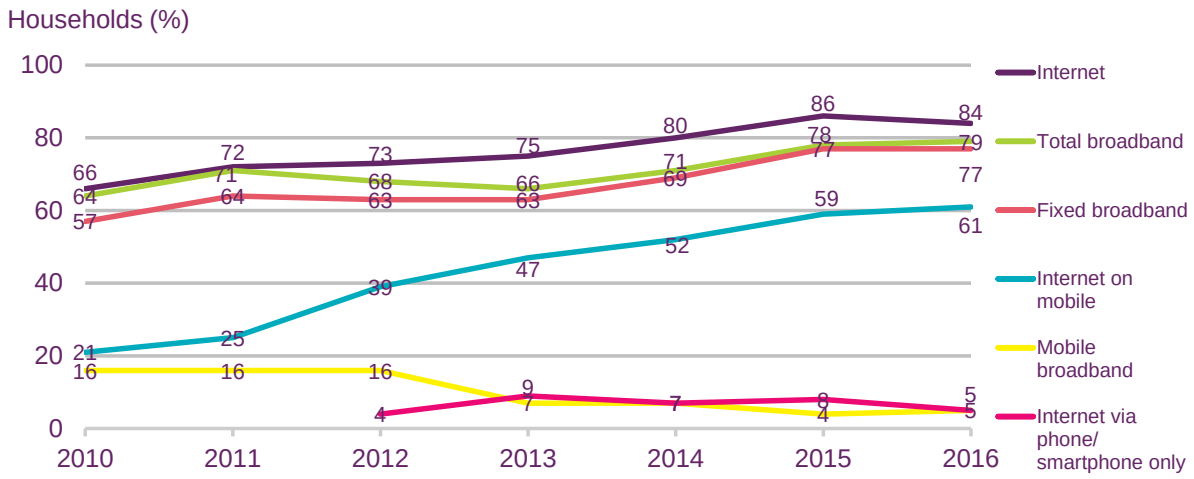
5.1 Internet take-up

More than eight in ten households in Wales have access to the internet

In 2016, more than eight in ten households in Wales had access to the internet.[19] Internet take-up levels in Wales are statistically unchanged since 2015.

Almost eight in ten households in Wales (77%) had access to fixed broadband at home, and six in ten (61%) adults in Wales had online access through a mobile phone, both figures unchanged since 2015. The proportion of adults in Wales accessing the internet exclusively through a mobile phone or smartphone remains stable at 5%.

Figure 5.1 Internet take-up in Wales: 2010-2016



Source: Ofcom Technology Tracker. Data from Q1 of each year 2010-2014, then H1 2015 and 2016
Base: All adults aged 16+ (n = 1075 Wales 2010, 493 Wales 2011, 513 Wales 2012, 492 Wales 2013, 491 Wales 2014, 496 Wales 2015, 489 Wales 2016)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales 2015 and 2016.
Note 1: 'Internet' includes access to the internet at home (via any device, e.g. PC, mobile phone, tablet etc.
Note 2: 'Total broadband' includes the following methods to connect to the internet at home – fixed broadband (via phone line or cable service), mobile broadband (via a USB stick or dongle, or built-in connectivity in a laptop/netbook/tablet with a SIM), tethering (via mobile phone internet connection on laptop/tablet), and mobile broadband wireless router (via 3G or 4G mobile network, which can be shared between devices).
Note 3: 'Fixed broadband' includes ADSL, cable and fibre services – perhaps using a Wi-Fi router. This includes superfast broadband services.
Note 4: 'Mobile broadband' is connecting a device using a USB stick or dongle, or built-in connectivity in a laptop or netbook or tablet computer with a SIM card.
Note 5: 'Internet on mobile' is the proportion of adults who use a mobile phone for any of the following activities: instant messaging, downloading apps or programs, email, internet access, downloading video, video streaming, visiting social networking sites.

[19]This includes internet access via broadband or mobile phone. Incidences of narrowband are too low to report but would still count as 'internet access'.

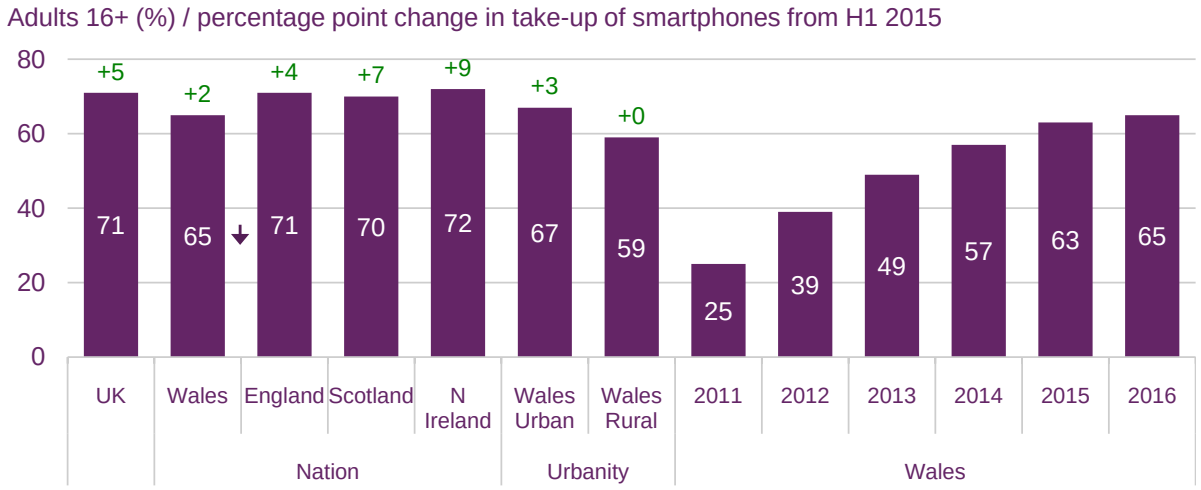
5.2 Internet-enabled devices

Smartphone ownership in Wales was lower than for the UK overall

In 2016, smartphone ownership among adults in Wales was lower than the UK overall (65% vs. 71%). This is a change since 2015, when levels of smartphone ownership in Wales and in the UK as a whole were comparable; this change is a result of the UK figure having risen by 5 percentage points.

Smartphone ownership does not vary significantly by urban or rural location in Wales.

Figure 5.2 Take-up of smartphones in Wales

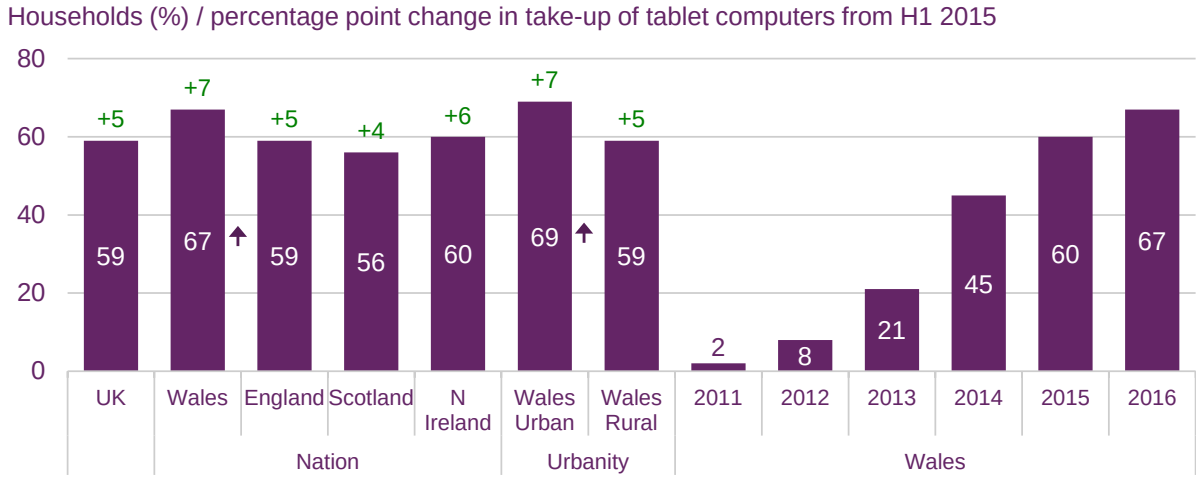


Source: Ofcom Technology Tracker, H1 2016
Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland, 240 Wales urban, 249 Wales rural, 493 Wales 2011, 513 Wales 2012, 492 Wales 2013, 491 Wales 2014, 496 Wales 2015, 489 Wales 2016)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016, between Wales urban and rural in 2016 and between Wales 2015 and 2016. Circles around the +/- figures above the chart indicate any significant difference between 2015 and 2016 for Wales, urban and rural.
QD24B: Do you personally use a smartphone? A smartphone is a phone on which you can easily access emails, download files and applications, as well as view websites and generally surf the web. Popular brands of smartphone include BlackBerry, iPhone and Android phones such as the Samsung Galaxy.

Households in Wales were more likely than in the UK overall to own a tablet

As in 2015, households in Wales continued to be more likely than households across the UK as a whole to own a tablet computer (67% vs. 59%). This followed significant increases in ownership each year since 2011. Household tablet ownership was higher in urban than in rural areas (69% vs. 59%).

Figure 5.3 Take-up of tablet computers in Wales



Source: Ofcom Technology Tracker, H1 2016

Base: All adults aged 16+ (n = 3737 UK, 489 Wales, 2239 England, 502 Scotland, 507 Northern Ireland, 240 Wales urban, 249 Wales rural, 493 Wales 2011, 513 Wales 2012, 492 Wales 2013, 491 Wales 2014, 496 Wales 2015, 489 Wales 2016)
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and UK in 2016, between Wales urban and rural in 2016 and between Wales 2015 and 2016. Circles around the +/- figures above the chart indicate any significant difference between 2015 and 2016 for Wales, urban and rural.
QE1: Does your household have a PC, laptop, netbook or tablet computer?

Internet users in Wales were more likely than in the UK as a whole to say that a tablet was their most important device for going online

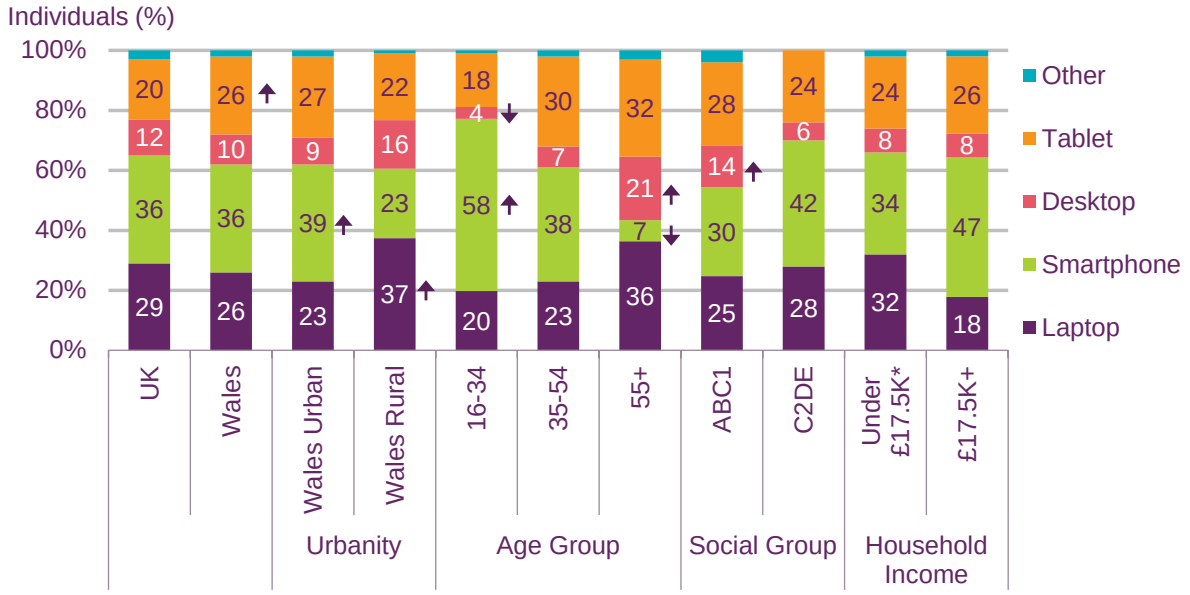
A quarter of internet users in Wales said that their tablet was their most important device for going online; higher than the one in five who said this in the UK as a whole. This may be due to higher tablet take-up in Wales than in the UK overall.

More than a third of internet users[20] in Wales (36%), said that their smartphone was their most important device for going online, at home or elsewhere. This matches attitudes for the UK overall.

With the exception of internet users aged over 55, and those living in rural areas, the smartphone was considered to be the most important device for internet access across all demographics. For example, 58% of 16-34s considered the smartphone to be the most important device, compared to 7% of over-55s. More than a third (34%) of ABC1s considered the smartphone to be their most important device; this rose to just under a half (47%) of internet users in C1DE households.

[20] Internet users are defined as those who ever go online, either at home or elsewhere.

Figure 5.4 Most important device for accessing the internet in Wales



Source: Ofcom Technology Tracker, H1 2016
Base: Internet users aged 16+ (n = 3100 UK, 401 Wales, 199 Wales urban, 202 Wales rural, 130 16-34, 125 35-54, 146 55+, 234 ABC1, 166 C2DE, 99 under £17.5K, 101 £17.5K+).
Significance testing: Arrows indicate any significant differences at the 95% confidence level between Wales and the UK in 2016, between Wales urban and rural in 2016, by age compared to all internet users in Wales in 2016, between socio-economic groups in Wales in 2016 and between household income groups in Wales in 2016.
*QE40: Which is the most important device you use to connect to the internet, at home or elsewhere? 'Other' responses include: netbook, e-reader, TV set, games console, other portable/handheld device, smartwatch, other device, none and 'don't know'. * Caution: low base*

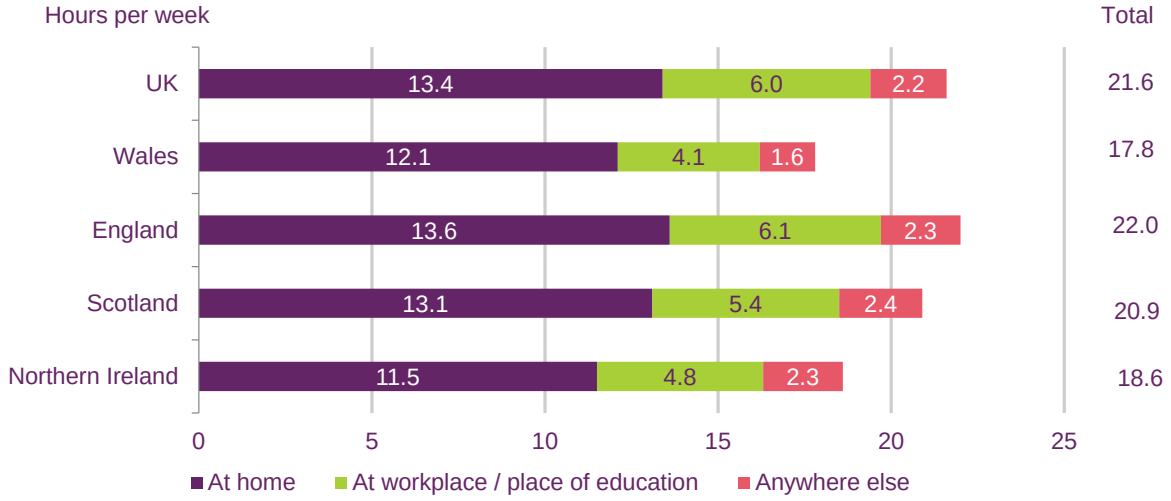
5.3 Internet use

Internet users in Wales spent an average of 17.8 hours online per week in 2015

According to research conducted for Ofcom's *Adult Media Literacy Report,*[21] internet users in Wales claimed to spend an average of 17.8 hours online per week in 2015. This was statistically unchanged since 2014. Of this, they spent 12.1 hours online at home. Time spent online at their workplace or place of education was significantly lower than in England and the UK as a whole. Time spent online anywhere else was also significantly lower compared to the UK and all other nations.

[21] Available online at http://stakeholders.ofcom.org.uk/market-data-research/other/research-publications/adults/media-lit-10years/

Figure 5.5 Claimed time spent on the internet in a typical week: 2015

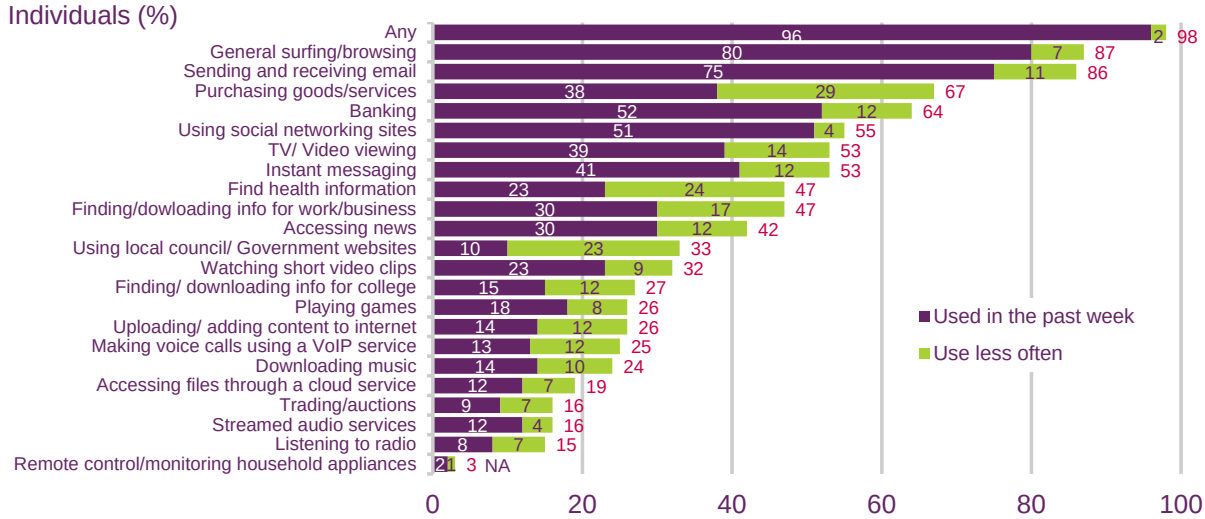


Source: Ofcom research, fieldwork carried out by Saville Rossiter-Base in October to November 2015.
Base: All adults aged 16+ who use go online at home or elsewhere (1548 UK, 957 England, 168 Scotland, 163 Wales, 170 Northern Ireland).
Question: IN6A-C – How many hours in a typical week would you say you use the internet at home/ at your workplace or place of education/ anywhere else? (Unprompted responses, single coded)

General surfing or browsing and sending and receiving email were the most popular activities among internet users in Wales in 2016

The most popular internet activities among adults in Wales in 2016 were general surfing/browsing (87%) and sending/ receiving email (86%). These were also reported as being the most used in the past week.[22] Purchasing goods/services was the next most popular activity (67%) followed by using the internet for banking (64%), although banking was the most used activity in the past week.

Figure 5.6 Activities carried out online by internet users in Wales



Source: Ofcom Technology Tracker, H1 2016
Base: Adults aged 16+ who use the internet at home or elsewhere (n= 401 Wales 2016)
QE5A: Which, if any, of these do you use the internet for?

[22] 'The past week' being that at the time of respondents' interviews.

6 Post

A note on our postal tracker research

Ofcom Residential Postal Tracker

The residential postal tracker survey is run throughout the course of the year, via face-to-face interviews with 1,946 respondents aged 16+ in the UK. A total of 151 respondents were interviewed in Wales. Postal tracking data in this report is cited as from 2015, with the fieldwork taking place from January to December 2015. In Quarter Three of 2015, we did not conduct any interviews, to allow a review of the survey methodology. For this reason, the samples achieved in Scotland, Wales and Northern Ireland are not directly comparable to previous years' data. The error margins of the sample in Wales are approximately +/- 5-8%.

Ofcom Business Postal Tracker

The business postal tracker survey is run throughout the course of the year, via telephone interviews, among a sample of 1,200 people who are responsible for post in UK SMEs (businesses with 0-249 employees) and 167 SMEs in Northern Ireland. Postal tracking data in this report is cited as from 2015, with the fieldwork taking place from January to December 2015. In Quarter Three of 2015, we did not conduct any interviews, to allow a review of the survey methodology. For this reason, the samples achieved in Scotland, Wales and Northern Ireland are not directly comparable to previous years' data. The error margins of the sample in Wales are approximately +/- 5-8.

6.1 Recent developments in Wales

Parcel surcharging

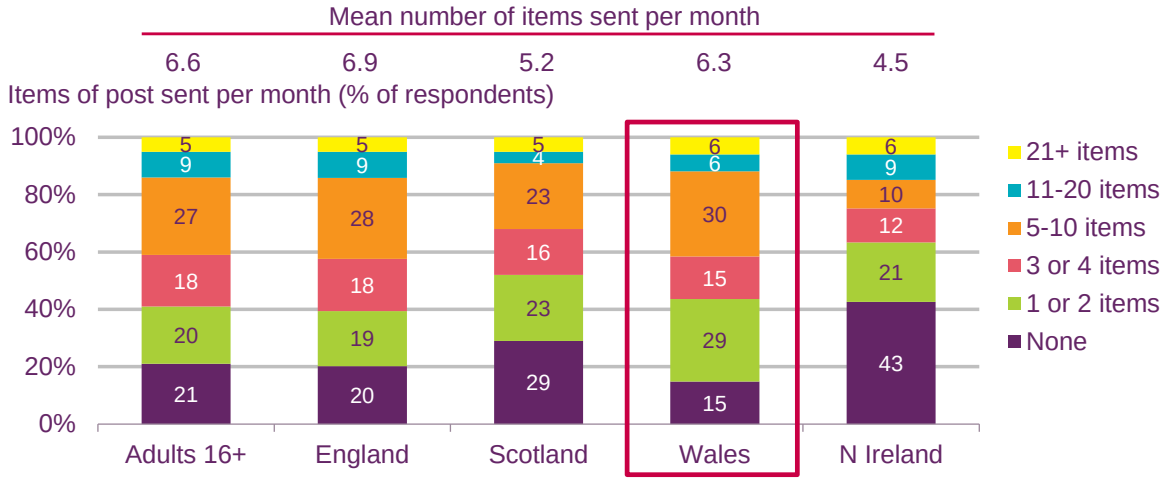
Individuals and consumer organisations continue to highlight that customers in rural, remote or distant locations can be subject to surcharges for parcel delivery, where the parcel falls outside the universal service for which a uniform price is applied. Ofcom is in the process of gathering information to understand the prevalence of these surcharges, to which locations they apply, and whether they are usually levied by retailers or delivery companies. Ofcom expects to set out some of these findings in its annual monitoring update on the postal market.

6.2 Sending and receiving post: residential customers

Almost nine in ten adults in Wales sent at least one item of post each month

Less than one in five (15%) adults in Wales said that they have not sent an item of post in the past month. This compares to 21% in the UK overall and 29% in Scotland. Adults in Wales sent an average of 6.3 items each month, compared to 6.6 items each month in the UK overall. A majority of adults (74%) sent between one and ten items in the past month.

Figure 6.1 Approximate number of postal items sent in the past month

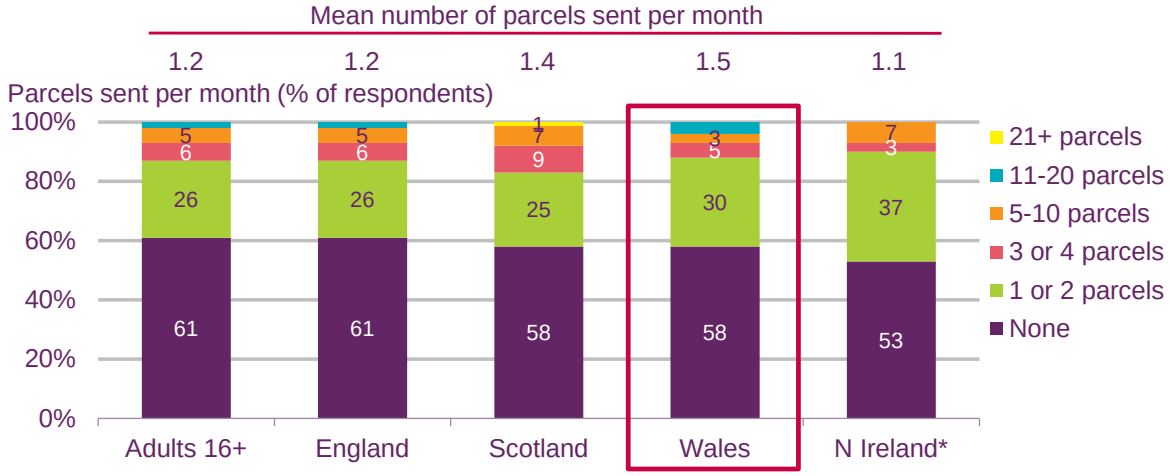


Source: Ofcom Residential Postal Tracker 2015
Base: All respondents (n = 1946 adults 16+, 1451 England, 214 Scotland, 151 Wales, 130 Northern Ireland)
QC1. Approximately how many items of post – including letters, cards and parcels – have you personally sent in the last month?

Adults in Wales sent an average of 1.5 parcels per month

Nearly six in ten adults (58%) in Wales said that they sent no parcels in the past month; this is on par with the other nations in the UK. Adults in Wales sent an average of 1.5 parcels per month, again similar to the rest of the UK.

Figure 6.2 Parcels sent in the past month



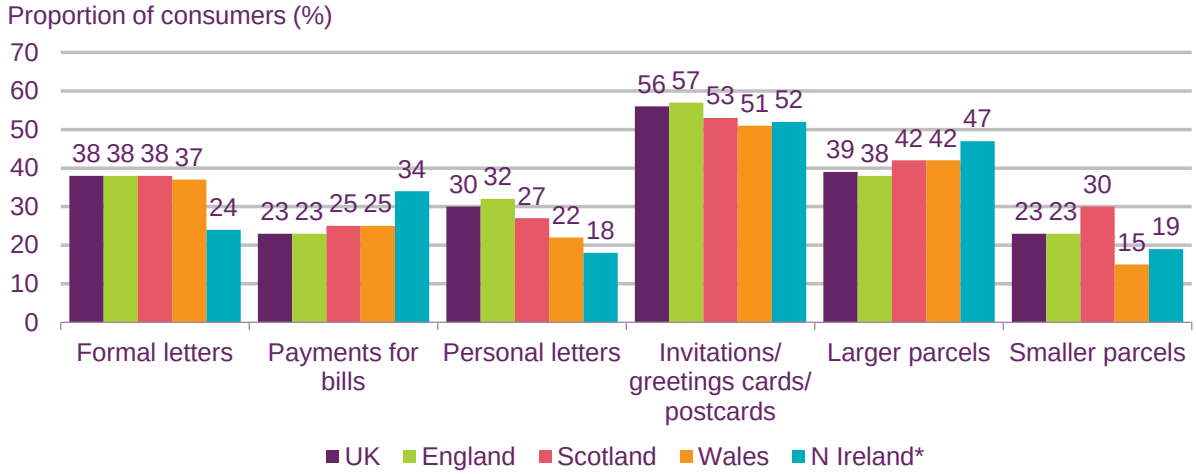
Source: Ofcom Residential Postal Tracker 2015
Base: All respondents who personally sent any items of post in the last month (n = 1491 adults 16+, 1131 England, 152 Scotland, 127 Wales, 81 Northern Ireland)
QC2. And how many of these items sent in the last month were parcels rather than letters or cards?
**Caution: Low base*

Adults in Wales are less likely to send smaller parcels than those in the UK as a whole

Less than one in five adults in Wales (15%) said they had sent a smaller parcel in the last month. All other types of post sent in the past month were largely in line with the UK

average. As in the other nations, a large proportion of respondents said that they sent invitations, greetings cards and postcards (51%) and larger parcels (42%).

Figure 6.3 Types of post sent in the past month

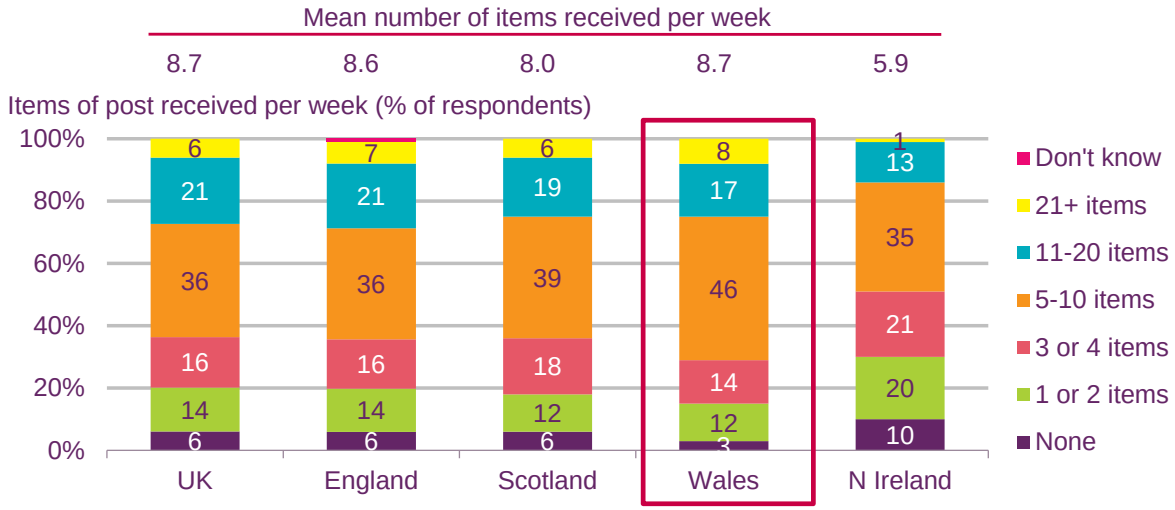


Source: Ofcom Residential Postal Tracker 2015
Base: All who have personally sent any items of post in the last week (n = 1491 UK, 1131 England, 152 Scotland, 127 Wales, 81 Northern Ireland)
*QC5. Which of these types of mail would you say you have personally sent in the last month by post? (multicode) *Caution: Low base*

The number of items received each week in Wales is in line with the UK average

Nearly half of adults in Wales (46%) said that they had received between five and ten items in the past week. Adults in Wales receive an average of 8.7 items of mail each week; this is close to the UK average overall, Scotland and England, but higher than in Northern Ireland.

Figure 6.4 Approximate number of items of post received in the past week

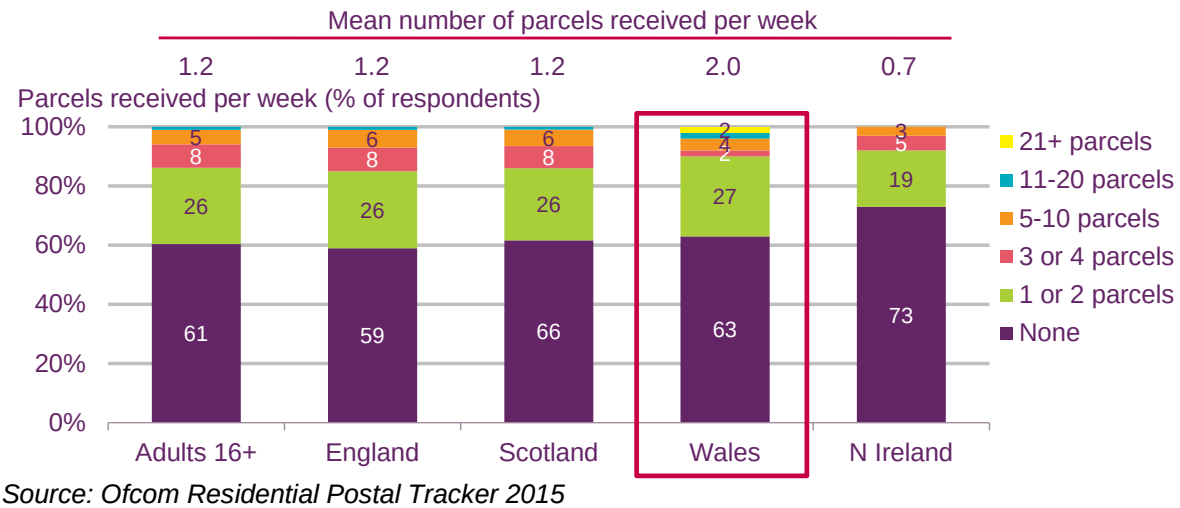


Source: Ofcom Residential Postal Tracker 2015
Base: All respondents (n = 1946 adults 16+, 1451 England, 214 Scotland, 151 Wales, 130 Northern Ireland)
QD1. Approximately how many items of post – including letters, cards and parcels – have you personally received in the last week?

Six in ten adults in Wales had not received any parcels in the past week

Just over six in ten adults in Wales (63%) said that they had not received any parcels in the last week, in line with the other UK nations. Just over a quarter (27%) said they had received one or two parcels.

Figure 6.5 Parcels received in the past week



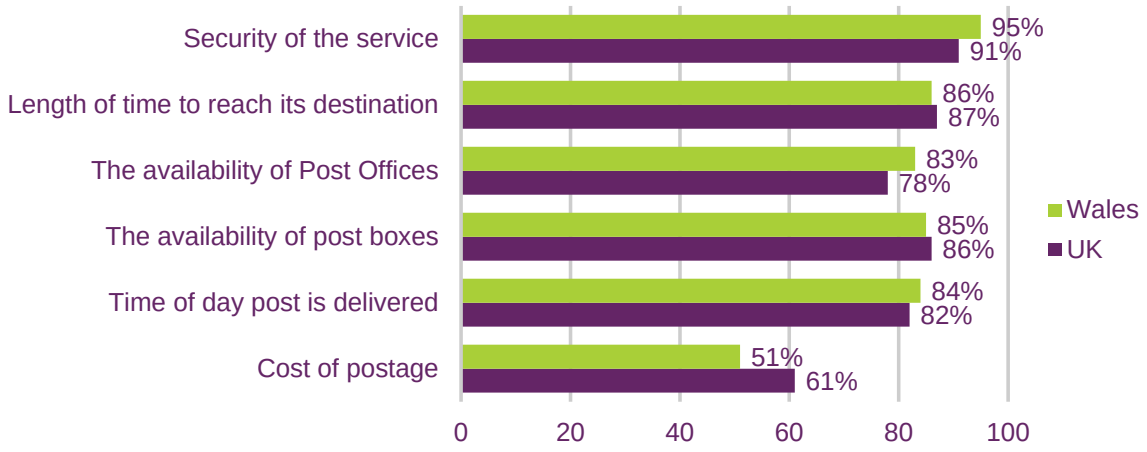
Source: Ofcom Residential Postal Tracker 2015
Base: All respondents who had personally received any items of post in the last week (n = 1824 adults 16+, 1258 England, 203 Scotland, 147 Wales, 116 Northern Ireland)
QD2. And how many of these items received in the last week were parcels?

6.3 Attitudes toward Royal Mail: residential customers

Adults in Wales say they are generally highly satisfied with specific aspects of Royal Mail's service

Over nine in ten adults in Wales (95%) say they are satisfied with the security of the service offered by Royal Mail. Nine in ten adults in Wales (86%) are also satisfied with the length of time that post takes to reach its destination. Over eight in ten adults (85%) say that they are satisfied with the availability of post boxes. A similar number of respondents (83%) say they are satisfied with the availability of Post Offices; this is higher than the UK overall average (78%).

Figure 6.6 Satisfaction with specific aspects of Royal Mail's service

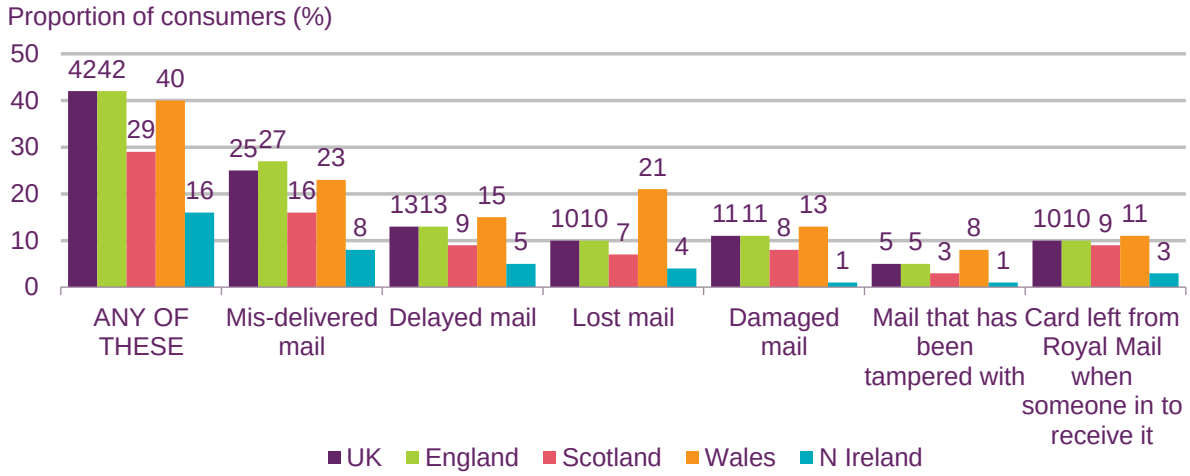


Source: Ofcom Residential Postal Tracker 2015
Base: All respondents in Wales (n = 1946 UK, 151 Wales)
QE3A-F. Satisfaction with specific aspects of Royal Mail's services – Ranked by proportion satisfied among adults in Wales

People in Wales report experiencing more problems with lost mail than those in all the other nations

More than one in five adults in Wales (21%) reported problems with lost mail in the past 12 months, more than in all the other nations. Just over one in ten adults (15%) said they had experienced delayed mail, and a similar proportion (13%) said they had had damaged mail.

Figure 6.7 Problems experienced with Royal Mail in the past 12 months



Source: Ofcom Residential Postal Tracker 2015
Base: All respondents (n = 1946 adults 16+, 1451 England, 214 Scotland, 151 Wales, 130 Northern Ireland)
QG1A-E. Problems experienced with Royal Mail service in the last 12 months, ranked by proportion among all UK adults. Note: tampered mail is mail that has been subject to a deliberate attempt to identify or steal its contents.

6.4 Sending and receiving post: business customers

Half of businesses in Wales send fewer than 25 letters each month

Businesses were asked how many letters and large letters their organisations send per month on average. Half of businesses (51%) in Wales said they sent between 0 and 24 items per month; this compares to nearly six in ten (59%) in the UK overall. A quarter of businesses (26%) in Wales say they send between 25 and 49 items each month on average; this compares to 18% for the UK overall.

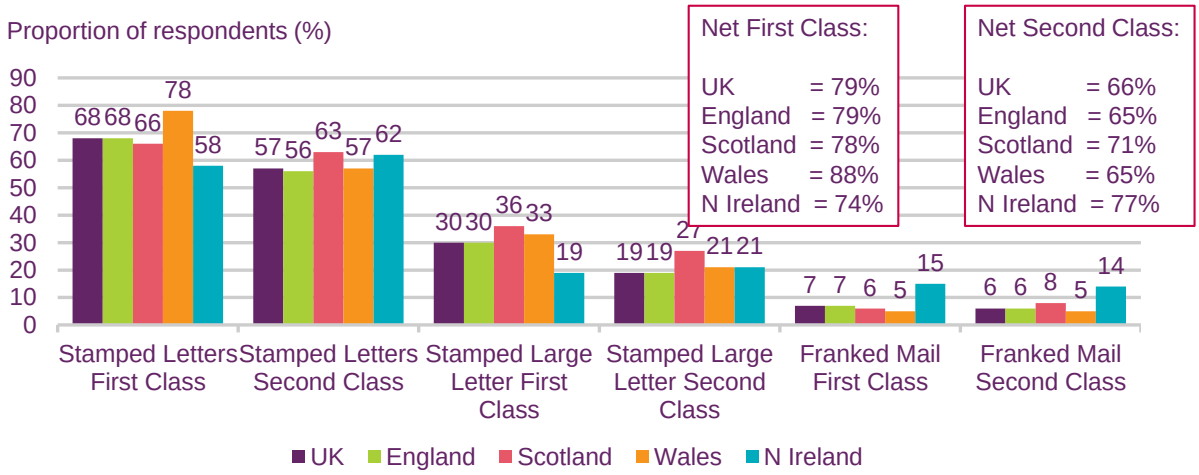
Figure 6.8 Average volume of letters sent each month

Source: Ofcom Business Postal Tracker 2015
Base : All respondents (n = 1200 UK, 734 England, 156 Scotland, 167 Wales, 143 N. Ireland)
QV2a. On average, how many letter items does your organisation send per month? Please think ONLY about all the letters and large letters you may send as an organisation.

Businesses in Wales use First Class more than those in the other UK nations

Nearly nine in ten businesses in Wales (88%) said that they used First Class services when sending letters (i.e. not tracked or signed for), a higher proportion than in all the other UK nations. Businesses in Wales tend to use other Royal Mail services in similar proportions to the UK average.

Figure 6.9 Royal Mail services used to send standard post each month



Source: Ofcom Business Postal Tracker 2015
Base: All respondents using RM standard delivery services (n = 1121 UK, 686 England, 146 Scotland, 155 Wales, 134 N. Ireland)
QV6d. Which, if any, of the following Royal Mail services does your organisation use to send your standard mail?

Businesses in Wales are among the least likely to have switched from post to another communication method in the past 12 months

Businesses were asked if they had switched some of their mail to other communication methods over the past 12 months. Half of businesses (52%) in Wales claimed they had moved some of their mail to alternative methods.

When asked why they hadn't switched any mail to other communication methods over the past year, the most popular response among businesses in Wales was 'happy with sending things by mail'. The most popular response for the UK as a whole was 'we have already moved everything that it is possible to move'.

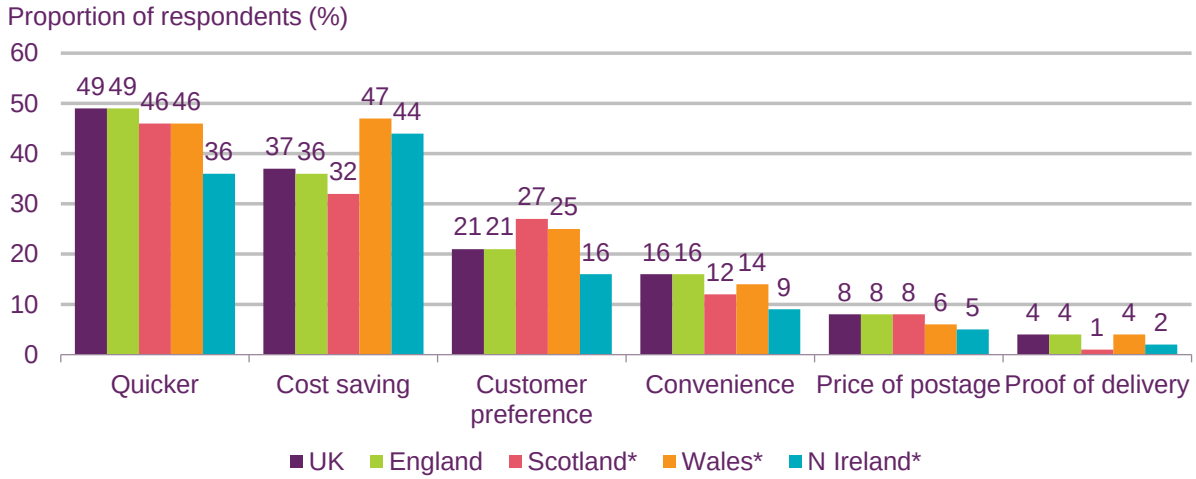
Figure 6.10 Switched some mail to other communication methods over past 12 months

Source: Ofcom Business Postal Tracker 2015
Base: All respondents (n = 1200 UK, 734 England, 156 Scotland, 167 Wales, 143 N Ireland)
QF4. Over the last 12 months, has your organisation moved some mail to other communication methods?

The most likely reason for switching is cost

Of those businesses that had moved some of their mail to alternative methods of communication, nearly half of them (47%) indicated that this had been a cost-saving decision while a similar percentage (46%) said it was for reasons of speed.

Figure 6.11 Main reasons for switching some mail to other communications methods over past 12 months



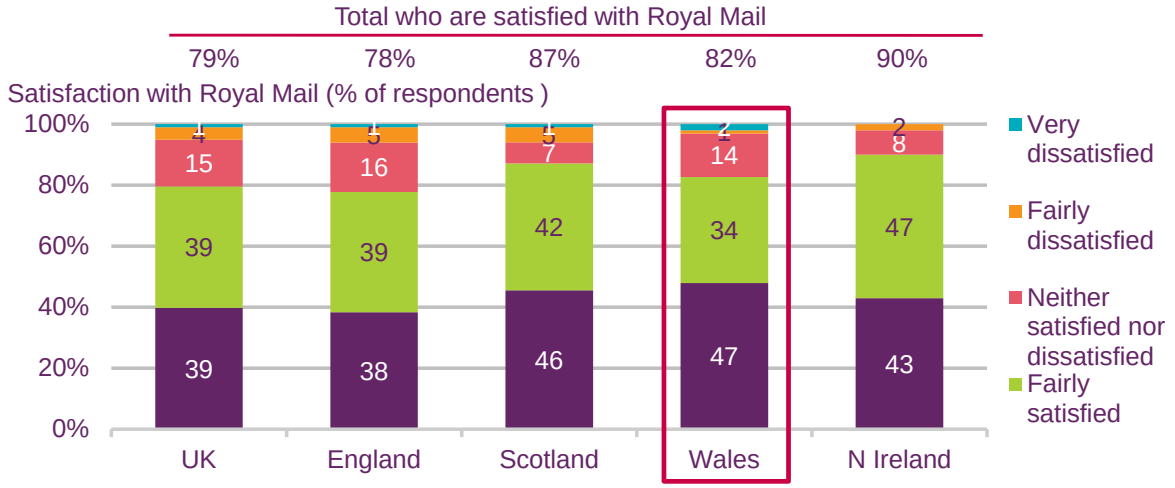
Source: Ofcom Business Postal Tracker 2015
Base: All who have moved to other communication methods (n = 720 UK, 452 England, 80 Scotland, 94 Wales, 94 N Ireland)
QF6: Why have you moved some mail to other communication methods? (open ended) Top 6 reasons shown
**Caution: Low base*

6.5 Attitudes towards Royal Mail: business customers

Satisfaction with Royal Mail is higher than the UK average among businesses in Wales

Businesses were asked about their overall satisfaction with the Royal Mail services they used, both as a sender and as a recipient. Eight in ten businesses (82%) in Wales said that they were 'very satisfied' or 'fairly satisfied' with Royal Mail services. The proportion of businesses in Wales who said they were 'very satisfied' (47%) is higher than that in the UK overall (39%).

Figure 6.12 Overall satisfaction with the quality of service from Royal Mail



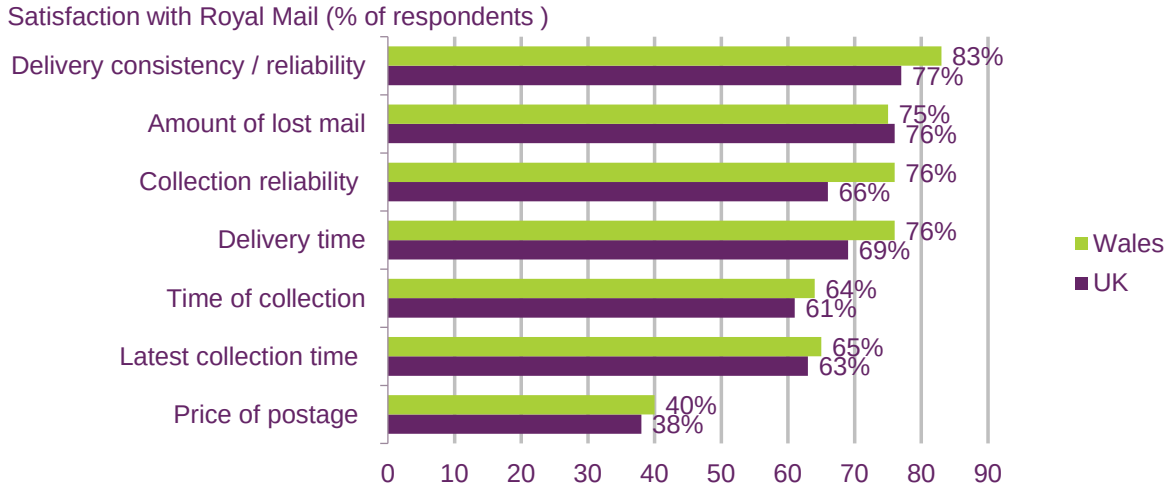
Source: Ofcom Business Postal Tracker 2015
Base: All respondents who use Royal Mail (n = 1185 UK, 727 England, 155 Scotland, 164 Wales, 139 Northern Ireland)
QRM2. Thinking generally about the service your organisation receives as a whole, on a scale of 1 to 5 where 1 is very dissatisfied and 5 is very satisfied, how satisfied are you with the overall quality of the services you receive from Royal Mail as a recipient and sender?

More businesses in Wales than in the UK as a whole are satisfied with collection reliability

More businesses in Wales than in the UK as a whole are satisfied with collection reliability (76% vs. 66%). Four in ten of businesses in Wales (40%) said they were satisfied with the price of postage, similar to the UK overall (38%). Over three-quarters of businesses reported satisfaction with delivery reliability/ consistency (83%), collection reliability (76%), delivery time (76%) and the amount of lost mail (75%).

Among businesses in Wales who use Royal Mail, more than eight in ten (82%) said they had had no problems with their service when sending or receiving mail in the past six months.

Figure 6.13 Satisfaction with specific aspects of Royal Mail's service



Source: Ofcom Business Postal Tracker 2015
Base: All respondents who use Royal Mail (n =1185 UK, 164 Wales)
QRM3: How would you rate the performance of Royal Mail, as a recipient and sender, in the following areas on a 5 point scale where 1 is very dissatisfied and 5 is very satisfied?