

# DIGITAL ATTITUDES SURVEY NORTH WEST LONDON

The Healthy London Partnership and The NHS North West London  
Collaboration of Clinical Commissioning Groups

## CONTENTS

---

1. Introduction	3
1.1 Key Findings	4
2. Survey Design	6
3. Digital Health Survey Responses	7
3.1 Respondent Health Baseline	7
3.2 Internet Utilisation for Health	12
3.3 Utilisation by Clinical Condition	16
4. Obstacles to digital health engagement	22
4.1 Key Obstacles	22
4.2 Confidence in using digital health services	23
4.3 Concerns about digital health services	24
4.4 Data Sharing	25
5. Opportunities for digital health services	26
5.1 Attitudes to specific digital health services	26
6. Benefits of digital health technology	29
7. Opportunities for digital health	30
8. Conclusion	33
9. Recommendations	35
10. Appendix 1 – Respondent Demographics	37

# 1. INTRODUCTION

---

The North West London (NWL) Collaboration of Clinical Commissioning Groups (CCGs) and the Healthy London Partnership (HLP) went out to tender in early 2017 jointly seeking a supplier to work with them to develop a survey that would inform an evidence base that will support their plans for improved delivery, and uptake, of existing and new digital health services.

The aim of this project was to develop a survey that would support the NWL collaboration in gaining a high level understanding of their citizen's needs, motivations and behaviours with regards to digital health tools and services. To achieve the goal of building an effective Digital Strategy for their citizens, the project brief requested support from expert partners to develop a mechanism for gathering evidence on:

- ♥ the factors that drive and sustain digital utilisation for targeted populations
- ♥ the features that enable people to become, and stay, connected with the NHS and the benefits of digital health tools
- ♥ key diversity needs specific to London to deliver the digital inclusion agenda
- ♥ how to improve citizen experience and outcomes
- ♥ how to improve service delivery efficiencies for the NHS

This project will provide an initial macro level evidence base that can be used to guide the development of long-term digital strategies.

In addition, the NWL Sustainability and Transformation Plan (STP) sets out a vision to improve self-management and enhance personalised and integrated care with citizens taking a more active role through the use of digital services and apps. The STP is committed to supporting the market to develop health apps that enable self-care for targeted populations in a way that enables connection into the mainstream workflows of health and care. The outputs from this survey will also provide macro level evidence to identify key areas that could be addressed through the STP plans.

The initial brief acknowledged that the availability of digital health services within the NHS is currently inconsistent and that those digital health services that are currently provided to the public are not being accessed by many people who could benefit from them or, where they are being accessed, are not being utilised to their full potential.

The potential for digital health technologies; such as online booking and information services; telehealth/telecare services; health and wellbeing Apps and Wearables; to contribute positively to improved health and social care service delivery is growing

and HLP are keen to ensure that these advances are available to Londoners and utilised in a manner that improves clinical outcomes alongside service efficacy and efficiency.

For this reason, the survey would need to be able to investigate:

- Whether the population were aware of digital health services
- Whether the population were prepared to utilise digital health services
- What obstacles prevented citizens from using digital health services
- Whether the population understood the potential benefits of utilising digital health services

In March 2017, HLP contracted with ORCHA Ltd to develop the required survey to help gather evidence to address each of these identified research areas. The study was conducted between 31st March 2017 and 11th of May 2017 and was carried out in partnership between HLP, NWL and ORCHA.

Survey responses were collected online at the NWL Digital Health and Care Survey and also face-to-face with respondents in GP Practices and other community settings within the NWL footprint. In total, 863 responses were collected through the various mechanisms during the 'live' collection phase.

This report presents an analysis of the responses from this survey.

## 1.1 KEY FINDINGS

There are a series of key headline messages that we would draw from this survey and report.

The survey highlights key positive opportunities for digital health service commissioners within the London region:

- Where people are already using digital health services, they overwhelmingly value these services.
- Where people are not currently engaged with digital health services, there is a clear appetite to engage with these services in the future.
- There are clear preferences outlined within the survey responses about which digital services people value most. This enables improvement teams to prioritise areas for development.
- People understand that there are potentially many benefits to them if they can access digital health services, which suggests that they would engage if their primary concerns are addressed.

The survey highlights the following obstacles to digital health engagement:

- ▼ People are not motivated to use Digital Health services until they are ill themselves
- ▼ People are not sufficiently aware of the potential of digital health services to promote wellbeing, illness prevention and improved self-management of long-term conditions.
- ▼ People are not sufficiently aware of the digital services that already exist.
- ▼ People are concerned about their privacy and confidentiality being undermined online.
- ▼ Culturally, many people are uncomfortable about losing the face to face relationships with their clinicians.
- ▼ Clinical recommendation and NHS assurance of digital services are important factors in digital service take up.
- ▼ Many hard to reach patient groups will need support to be available to realise the full range of benefits of digital health services.

Taken together, these key messages should provide encouragement for health improvement teams. They support the notion that the public will engage with these services if the correct levels of assurance around the safety and security of the digital health services can be delivered.

## 2. SURVEY DESIGN

---

The NWL Digital Health and Care Survey consisted of 53 individual questions designed to capture key characteristics of survey respondents.

The questions were grouped to cover the following basic high-level characteristic groupings:

- ▼ Respondent Demographics - Age, Gender, Ethnicity, Location and Education
- ▼ Respondent Health Baseline – Existing Health Conditions and a baseline assessment of current health service utilisation
- ▼ Respondent attitude towards technology – Internet and other technology utilisation baseline
- ▼ Respondent attitude towards digital health technology – Understanding of Benefits and Risks of digital health technology and attitudes towards the technology

The survey was designed to allow respondents to complete only the questions that were relevant to them and, as a result, different respondents could take different paths through the survey. Respondents were also allowed to skip questions if they did not wish to complete them, though some 'core' questions were mandatory.

The survey design went through many iterations, but was signed off and went live on the 31st of March 2017. Responses were then collected using the online tool, and through face-to-face interactions with individuals within GP Practices, and other community settings, in London, until midday on the 11th of May, at which point the survey results were collected, collated and analysed.

## 3. DIGITAL HEALTH SURVEY RESPONSES

### 3.1 RESPONDENT HEALTH BASELINE

#### 3.1.1 CONDITIONS REPORTED BY RESPONDENTS

831 people responded to the question relating to Health Conditions they may have and 32 people skipped the question. Of those who responded 371 (44.65%) did not report having any condition and 1 response was blank.

Health Condition Reported	% of Total	No. of Responses
None of the above	44.65%	371
Anxiety	18.65%	155
Other (please specify)	16.25%	135
Depression	15.52%	129
High blood pressure	14.80%	123
Asthma	10.11%	84
High cholesterol	10.11%	84
Diabetes	5.42%	45
Physical disability	3.85%	32
Sensory disability (sight, hearing etc.)	3.37%	28
Other mental health conditions	2.89%	24
Heart disease	2.29%	19
Lung disease or Chronic Obstructive Pulmonary Disorder (COPD)	1.93%	16
Cancer	1.81%	15
Learning disability	1.32%	11
Dementia or Alzheimer's disease	0.84%	7
Autism or Asperger's	0.60%	5
HIV or AIDs	0.24%	2
<b>Total</b>		<b>831</b>

Figure 1

459 (55%) of the 831 reported having one or more conditions. The conditions list presented to users is shown in figure 1, with the full response split.

Anxiety, Depression and Stress related conditions were the most prominent group of conditions, with High Blood Pressure, Asthma and High Cholesterol also impacting significant numbers of respondents.

All of these conditions are particularly amenable to digital health tools, with many Apps available on the market to support those suffering from Depression and Stress, allied to significant advances in wearable health monitors that can support the monitoring of Blood Pressure, Cholesterol, Diet and Activity levels which can positively impact on the conditions highlighted here.

The survey results suggest that there is potential for prioritising further testing of digital health tools that are designed to drive self-management of the key conditions listed in the survey results.

Of the 459 respondents who recorded having a condition, many had multiple conditions.

No. of Conditions Per Respondent	% of Total	No. of Patients
1	47.06%	216
2	28.98%	133
3	13.29%	61
4	5.45%	25
5	2.61%	12
6	1.53%	7
7	0.22%	1
8	0.65%	3
9	0.22%	1
<b>Grand Total</b>	<b>100.00%</b>	<b>459</b>

Figure 2

The table shown in figure 2 breaks down the number of patients who reported having multiple conditions by the number of conditions they had. Just under 53% of those who reported having a health condition had multiple conditions, with one patient recording 9 separate health conditions.

People with multiple health conditions are often high users of health and care services and the data collected in the survey backs this up.

Of the 459 people who reported health conditions:

- ▼ 74% (332 Respondents) had visited their GP in the last 3 months and 31% had visited their GP twice or more in the last 3 months
- ▼ 6.5% (28 Respondents) had at least one hospital stay in the last 3 months
- ▼ 12.5% (59 Respondents) had at least 1 visit to an A&E in the last 3 months
- ▼ 40% (180 Respondents) had at least 1 hospital appointment in the last 3 months
- ▼ 11% (49 Respondents) had care delivered at home in the last 3 months
- ▼ 9% (40 Respondents) had used 111 services in the last 3 months
- ▼ 71% (324 Respondents) had requested a repeat prescription in the last 3 months
- ▼ 24% (107 Respondents) had needed an Urgent Appointment in the last 3 months
- ▼ These utilisation rates are significantly higher than those reported by respondents who clicked the 'None of the Above' option across all the Health utilisation options.

There is significant potential for digital services to have a strong impact on the welfare and utilisation levels of people with multiple conditions, given the nature of the key specific conditions highlighted within this survey and the corresponding utilisation levels that are linked to this population cohort.

% INTERNET UTILISATION FOR HEALTH BY No. OF HEALTH CONDITIONS

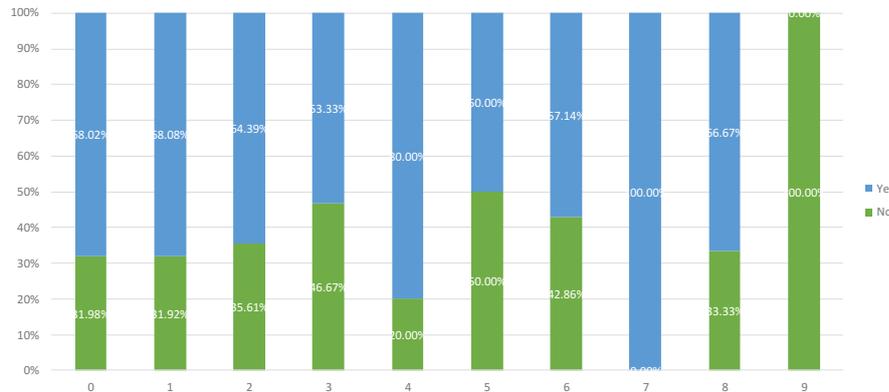
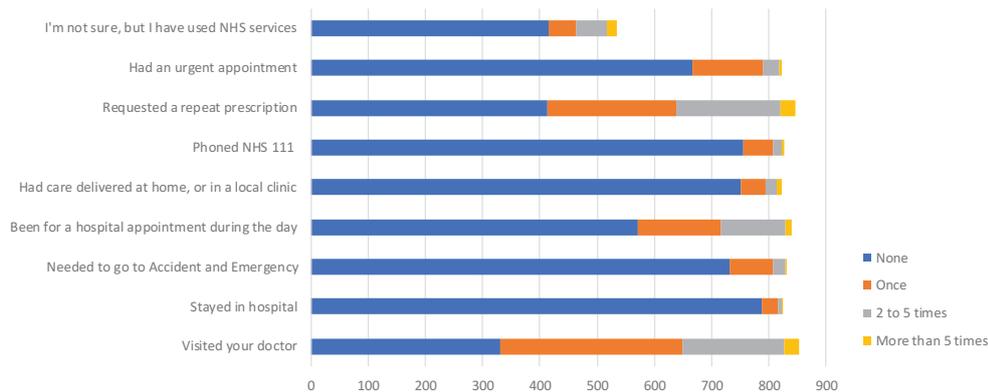


Figure 3

### 3.1.2 HEALTH SERVICE UTILISATION

On a broader view, all respondents (863) answered the Health Service Utilisation question. Each element of the question received a different level of responses and the results are detailed below.

HOW MANY TIMES HAVE YOU?



	Visited your doctor	Stayed in hospital	Needed to go to Accident and Emergency	Been for a hospital appointment during the day	Had care delivered at home, or in a local clinic	Phoned NHS 111	Requested a repeat prescription	Had an urgent appointment	I'm not sure, but I have used NHS services
None	331	788	731	571	751	755	414	667	416
Once	319	29	77	146	44	52	224	124	48
2 to 5 times	177	6	21	112	19	16	183	27	54
More than 5 times	26	2	2	10	8	3	25	5	16

Figure 4

- ♥ 41% (522 Respondents) reported seeing their GP in last three months
- ♥ 4.5% (37 Respondents) had stayed in hospital in the last three months
- ♥ 12% (100 Respondents) had used A&E in last three months
- ♥ 31% (268 Respondents) had a hospital appointment in the last three months
- ♥ 8.5% (71 Respondents) had care delivered at home in the last three months
- ♥ 8.5% (71 Respondents) had used 111 in the last three months
- ♥ 51% (432 Respondents) had ordered a repeat prescription in the last three months
- ♥ 19% (156 Respondents) had an emergency appointment in the last three months

The bulk of these responses are accounted for by people with multiple conditions as described in the previous section.

The Age Band % split of these responses are generally in line with the overall Age Band % split for the Survey, suggesting that the Age of the respondent is not creating significant variation across these responses and is not a key factor in determining health service utilisation behavior. However more detailed analysis is required in some specific areas of the survey to confirm that age is not a significant determinant of variation within this survey.

### 3.1.3 SOCIAL ISOLATION

828 respondents answered the question relating to Social Isolation and Loneliness of which, 17% (140 Respondents) reported feeling isolated or lonely. 35 respondents skipped the question.

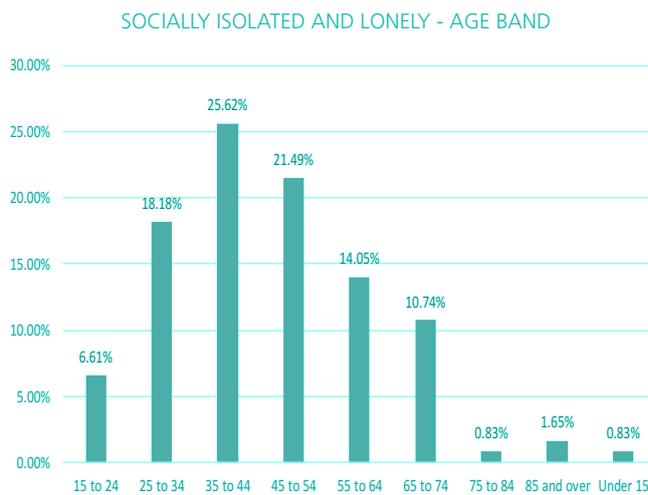


Figure 5

Of the 140 respondents who reported being lonely and socially isolated:

- ▼ 63.3% (89) use the Internet for Health and Care Support
- ▼ 75% (105) report seeing their GP in the last 3 months
- ▼ 7% (10) had been in hospital in the last 3 months
- ▼ 16% (22) had used A&E within the last 3 months
- ▼ 47% (66) had a hospital appointment in the last 3 months
- ▼ 18% (25) had Care delivered at home in the last 3 months
- ▼ 14.5% (20) had used 111 in the last 3 months
- ▼ 61% (85) had a repeat prescription in the last 3 months
- ▼ 17% (24) had required an urgent appointment in the last 3 months

Despite being relatively high users of the Internet for health services, hospital

and general health service utilisation rates for this cohort of respondents is high compared with the average scores for the entire survey response.

Somewhat surprisingly, when this cohort is analysed by age band it is not the older members who contribute to these higher figures, with nearly 65% of those who are reporting as 'Socially Isolated or Lonely' being between the ages of 25 to 54.

The Good Things (previously Tinder) Foundation Report published in July 2016 'Health and Digital – Reducing Inequalities, Improving Society' highlighted the impact of digital exclusion and its relationship to health outcomes.

The report highlighted that an estimated 12.6 million adults (23%) in the UK lack basic digital skills, and 10.2% of adults (5.3 million) have never used the internet. The report also provides research which suggests that 'digital exclusion is closely linked to other measures of social exclusion, meaning that statistically, digitally excluded people tend to be at greater risk of poor health.'

The Widening Digital Participation programme had the aim of targeting the hardest to reach people first, including:

- ✓ People with dementia
- ✓ Carers of people with dementia and other unpaid carers
- ✓ People with learning difficulties or disabilities.
- ✓ Young people (including those at risk of offending)

These target groups correspond with the groups cited in the National Information Board's 'Personalised Health and Care 2020: A Framework for Action'. The programme has subsequently had a significant impact on health services, with people now using the internet as their first port of call for information and there are valuable lessons to be learned from this programme for those who wish to address digital and social exclusion within their regional areas.

The programme's outcomes were impressive:

- ✓ 21% of learners made fewer calls or visits to their GP
- ✓ 10% of learners made fewer calls to NHS 111
- ✓ 6% of learners made fewer visits to A&E,
- ✓ 29% of learners have gone online to find health services, such as looking for a new GP.
- ✓ 22% of learners have progressed to booking GP appointments online and 20% have ordered repeat prescriptions online.
- ✓ 17% of learners have gone online to rate or review their GP or another health service they have used.

This behaviour change resulted in significant cost savings to the NHS. The Tinder Foundation's evaluation found potential annual savings of:

- £3.7m in saved GP visits
- £2.3m in saved A&E visits.

These savings alone represented a return on investment of £6.40 for every £1 invested in year three of the programme. (<http://nhs.goodthingsfoundation.org/> )

To achieve this the programme trialled several innovative care models, including:

- Providing public WiFi in ward settings alongside the provision of mobile devices.
- Making referrals to digital health training.
- Training clinical staff and other health professionals to be Digital Champions.

All of these options could be considered by the NWL and HLP when agreeing next steps.

## 3.2 INTERNET UTILISATION FOR HEALTH

546 (66.3%) of respondents report accessing the internet for health purposes, while 277 (33.7%) say that they do not. 40 people did not leave a response to this question.

We have reviewed this split across a range of key demographic indicators to understand whether different groups respond differently to Digital Health services.

### 3.2.1 UTILISATION BY AGE BAND

When assessed by age group, the assumption that younger people are more likely to use digital health services, while their older counterparts are less likely to get their health service support from technology, appears to be borne out.

Approximately 11% of those who access the Internet for health purposes are over 65. However, this same age group accounts for 20% of those who report not accessing the internet for health purposes. The assumption we would make is that a lack of confidence in using technology and a preference for face to face contact are the drivers of a reluctance across older members of the population to engage with digital services that could support better management of care, despite their greater need for health services.

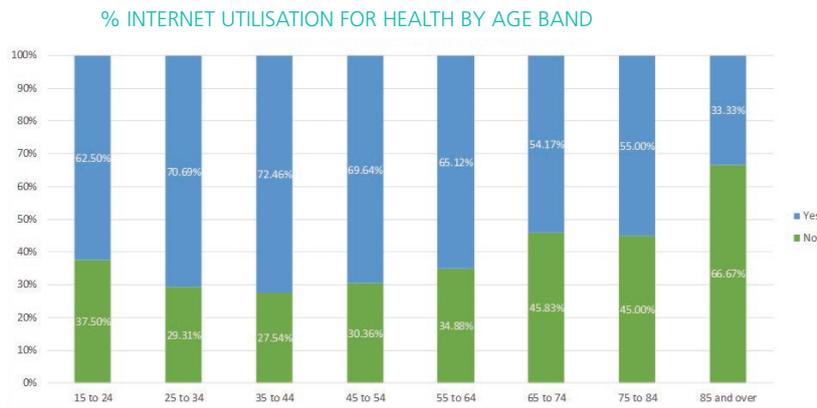


Figure 6

Interestingly, those aged between 15 and 24 also account for a relatively significant element of those who do not use the internet for health purposes. We would expect this to reflect the fact that younger people are generally healthy and as such do not tend to have a significant interest in health information and services online.

But this does highlight how important it will be to develop different approaches when trying to engage different generations in utilising digital health services, as there appears to be very different drivers behind each group’s motivation and approach to these services.

### 3.2.2 UTILISATION BY EDUCATIONAL ATTAINMENT

We also assessed the use of internet health services against levels of educational attainment. As expected, internet utilisation for health is high amongst those who have achieved higher levels of formal education and the proportion of those who do not access the internet for health services is greater amongst those with less formal educational qualifications.

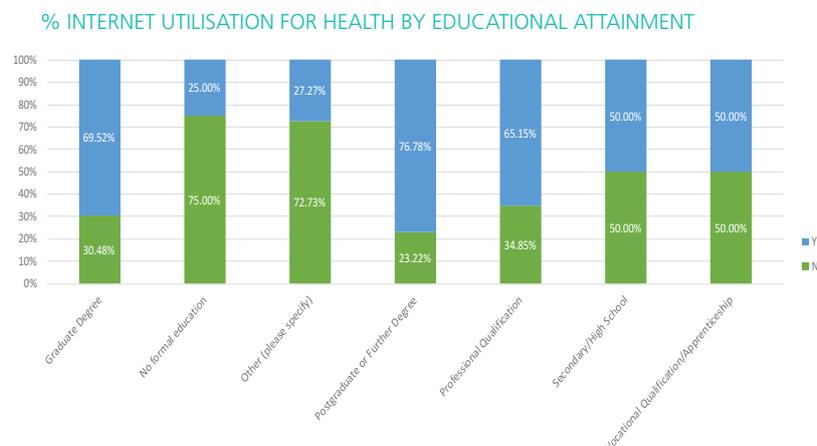


Figure 7

Whether this is down to the fact that those with higher level qualifications will tend to work in positions that have a greater need of technological support and potentially

less time to access health services within working hours, or whether this is due to other extenuating factors cannot be inferred from this survey.

However, at a high level the survey responses suggest that lower levels of education are not equipping individuals with the skills needed to extract the full potential from technological advances and this group needs to be supported to address this. As mentioned previously digital exclusion is often seen as a broader marker for social exclusion and can have negative effects on broader health and wellbeing.

### 3.2.3 UTILISATION BY ETHNIC GROUP

We also looked at internet health utilisation by ethnicity but it is difficult to draw any solid conclusions from this data at present.

On a superficial level, it appears that the White communities are more engaged with Internet use for health purposes, whereas ethnic communities are less likely to use the internet for health purposes.

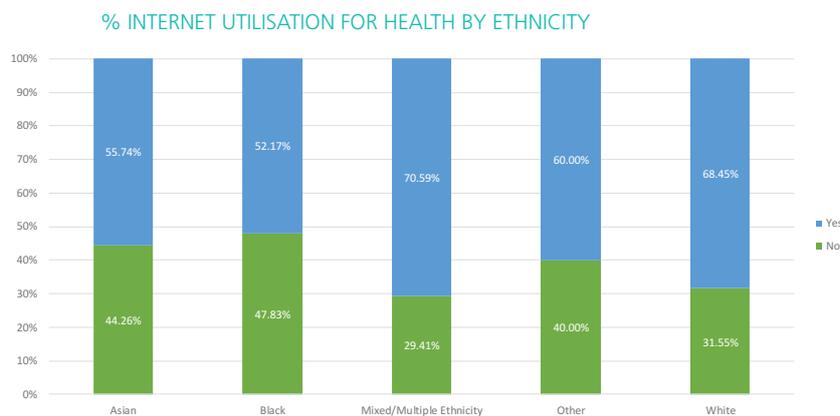


Figure 8

It is not possible to understand if this is due to differing cultural values, language or a lack of technical skills from the data collected, but this is potentially another area worth investigating further to ensure that each ethnic group are engaged with in a manner that is appropriate to their needs.

Different health conditions are often associated with different ethnic populations and as a result the type and range of digital tools required will vary across cultural and religious groups.

### 3.2.4 UTILISATION BY GENDER

From a gender perspective, the survey suggests that women are more likely to use the internet for health purposes with male responses proportionately lower than females.

456 women responded to the question and 225 men. 319 women reported that they used the internet for health purposes with only 135 men doing the same.

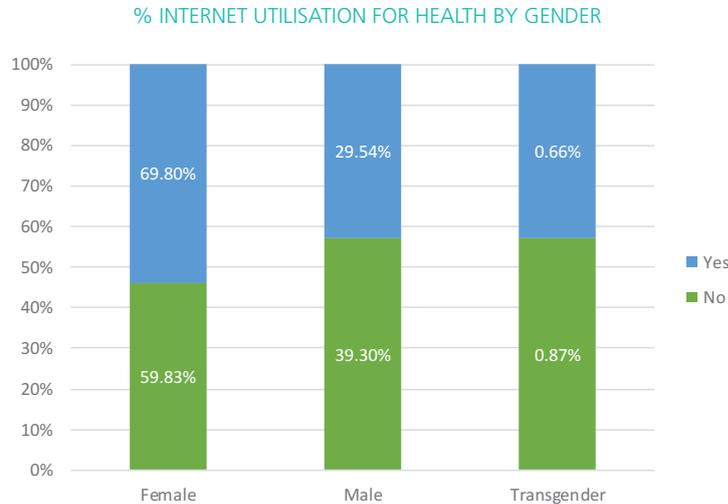


Figure 9

Of the female cohort who responded to the question, 70% use the internet for health purposes, whereas only 60% of the male respondents do. This may reflect the fact that males are less open about health issues and less keen to engage with health services early when issues arise.

In addition, women tend to take more responsibility around family health issues and are more likely to act as a carer for family and friends.

However, while the survey responses appear to corroborate this gender split, it also highlights the need for a different approach to be taken with the male population in order to ensure they engage better with their own health and health services.

### 3.2.5 UTILISATION FREQUENCY

A question was posed to assess how often people are prepared to utilise the internet for health services. 531 people responded and 332 skipped the question.

Frequency of Internet for Health Use	% of Respondents	No. of Respondents
Less than once a month	65.35%	347
Several times a month	25.42%	135
Several times a week	4.52%	24
Once a day	2.82%	15
Several times a day	1.88%	10
<b>Grand Total</b>	<b>100.00%</b>	<b>531</b>

Figure 10

Of those who responded, only 34% reported using the internet for health purposes more than once a month. This is to be expected as health services will only be required when an individual needs information or support relating to a particular health condition or illness. We would not expect health searches to be regularly undertaken

by a general population without this need providing a driver for that access.

### 3.3 UTILISATION BY CLINICAL CONDITION

The survey asked respondents to record if they experienced any of a pre-defined list of health conditions in an attempt to understand whether the nature of a specific condition had any bearing on how people utilised digital health services. This section will present the key results from that clinical specific analysis.

The original Programme brief supplied by the HLP and NWL Team for this project included a request to review the results specific to the cohort groups outlined in the table below.

#### 3.3.1 DEFINITION OF THE CLINICAL GROUPS

1	<b>Mostly healthy adults &lt;75</b>	People aged between 16-75 who are mostly healthy and do not have long term conditions, cancer, serious and enduring mental illness, physical or learning disabilities and advanced organic brain disorders. Includes those who have a defined episode of care, e.g., acute illness with full recovery, maternity
2	<b>Mostly healthy elderly (&gt;75) people</b>	Same as group 1 but for those who are above the age of 75
3	<b>Adults (&lt;75) with one or more LTCs</b>	People aged between 16-75 who have one or more long-term conditions. e.g., HIV, COPD, diabetes, heart disease Includes common mental illnesses, e.g., depression, anxiety
4	<b>Elderly (&gt;75) people with one or more LTCs</b>	Same as group 3 but for those who are above the age of 75
5	<b>Adults and elderly people with cancer</b>	People aged above 16 who have any form and stage of cancer
6	<b>Adults and elderly people with SEMI<sup>1</sup></b>	People aged above 16 who have a mental-health problem (typically people with schizophrenia or severe affective disorder) who experience a substantial disability as a result of their mental-health problems, such as an inability to care for themselves independently, sustain relationships or work
7	<b>Adults and elderly with advanced organic brain disorders</b>	People aged above 16 who have a decreased mental function resulting from a medical disease rather than a psychiatric illness, includes dementia as well as other conditions such as Huntington’s and Parkinson’s disease
8	<b>Adults and elderly people with learning disabilities</b>	People aged above 16 who have a difficulty learning in a typical manner that affects academic, language and speech skills Excludes mild conditions that does not have an impact on social relationships or work
9	<b>Adults and elderly people with severe and enduring mental illness</b>	People aged above 16 who have a FACS eligible physical disability Excludes physical disabilities, including sensory disabilities, that are not FACS eligible FACS eligibility includes an inability to perform 3 or more household tasks

<sup>1</sup> Severe and enduring mental illness.

<sup>2</sup> For example, the homeless, people with alcohol and drug dependencies. Source: Whole Systems Integrated Care module working group

This section of the report will present the key findings within these specific groupings.

### 3.3.2 MOSTLY HEALTHY ADULTS < 75

There were 666 respondents who fell into this health category and of those, 447 (67.12%) recorded that they used the internet for health services.

219 (32.88%) recorded that they do not use the internet for health services and out of this group, the following breakdown details their key reasons for not doing so:

- ▼ 32 (14.61%) said they did not trust the internet for health
- ▼ 12 (5.48%) quoted the cost of access
- ▼ 11 (5.02%) did not know how to use the internet
- ▼ 18 (8.22%) were not confident in using the internet
- ▼ 12 (5.48%) did not have any interest in using the internet for health
- ▼ 34 (15.53%) worried about who could view their information
- ▼ 29 (13.24%) worried about how their information was used
- ▼ 24 (10.96%) worried about their data being hacked
- ▼ 4 (1.83%) could only access in a public space
- ▼ 2 (0.91%) had an impairment that limited their ability to access the internet
- ▼ 11 (5.02%) worried about online advertising
- ▼ 9 (4.11%) worried about online abuse

The key concerns were centered around how an individual's information was used and how the privacy of their health data could be assured.

121 people left comments in response to this question outlining other obstacles which were not included within the original list and, while it is not easily to calculate a robust rate for these comments, a high level categorisation of the comments highlighted the following three key additional reasons for not accessing the Internet for health. These were:

- ▼ I am healthy and do not need to use these services
- ▼ I did not know these services were available
- ▼ I prefer to be seen by a professional

The vast majority of comments were in the 'no need' group and this is to be expected from a healthy younger population. This group will not be high users of health services generally and, as a result, will also not tend to be high users of digital health services.

These low levels of use of health services are reflected in their responses to the health utilisation survey questions, with:

- ▼ Only 20% of these respondents have seen the GP more than once in the last 3 months
- ▼ Less than 5% have had a hospital stay in the last 3 months
- ▼ Less than 11% have used A&E in the last 3 months
- ▼ Less than 15% have had a hospital appointment in the last 3 months
- ▼ Less than 10% have had care delivered at home in the last 3 months
- ▼ Less than 9% have used NHS 111 services in the last 3 months
- ▼ Less than 45% have used Repeat Prescriptions in the last 3 months
- ▼ Less than 20% have had an urgent appointment in the last 3 months

Similarly, when asked to outline the benefits and obstacles to digital health service utilisation, this cohort of respondents highlighted Information Assurance and Privacy, and awareness of available services, as key barriers to their potential engagement with digital health services. It must be noted however, that these attitudes may change when this cohort experience illness or poor health.

### **3.3.3 MOSTLY HEALTHY ADULTS > 75**

There was only 1 respondent who fulfilled this criteria within the survey. Analysis of this single record has limited value in relation to useful learning around this cohort.

### **3.3.4 ADULT WITH MULTIPLE HEALTH CONDITIONS > 75**

There were 21 respondents to this survey who demonstrated these characteristics. This group did report having multiple health conditions and were aged 75 or over. 9 (42.86%) of the group used the internet for health services and 12 (57.14%) did not.

Of the 12 who did not use the internet for health services:

- ▼ 5 (41.67%) did not have access to a PC or Smartphone
- ▼ 6 (50%) did not know how to use the internet
- ▼ 3 (25%) had no interest in using the Internet
- ▼ 2 (16.67%) do not trust health information on the internet
- ▼ 3 (25%) felt isolated and lonely.

Although these numbers are small, it is clear that the need to acquire the correct skills and tools to access the internet is a key impediment to their ability to access the range of digital health tools that could support their ongoing well-being.

In addition, this group also saw Information security and privacy as a key obstacle to digital health utilisation with 8 (66.67%) of the cohort reporting a worry about how their information would be used.

### 3.3.5 ADULTS WITH MULTIPLE LONG-TERM HEALTH CONDITIONS < 75

There were 198 respondents to this survey who demonstrated these characteristics. This group did report having multiple health conditions and were aged 75 or under. 128 (64.65%) of the group used the Internet for Health services and 70 (35.35%) did not.

Of the 70 who did not use the internet for health services:

- ▼ 3 (4.29%) did not have access to a PC or Smartphone
- ▼ 11 (15.71%) stated that the cost was prohibitive for them
- ▼ 7 (10%) did not know how to use the internet
- ▼ 9 (12.86%) were not confident using the internet
- ▼ 1 (1.43%) had no interest in using the Internet
- ▼ 14 (20%) worried about who could access their data
- ▼ 11 (15.71%) worried about how their information was used
- ▼ 17 (24.29%) do not trust health information on the internet
- ▼ 2 (2.86%) had an impairment that limited their access to the internet
- ▼ 27 (38.57%) felt isolated and lonely.

This cohort differs significantly from those living with multiple conditions who are over 75 years of age. While Information Security and Privacy is an issue both groups have, this group demonstrates that the cost of access is a much bigger concern than their older counterparts.

It was also noteworthy to consider the proportion of this cohort who reported feeling isolated and lonely 27(38.57%). This appears to be a greater issue for this age group than expected.

In addition, this group saw information security and privacy as a key obstacle to digital health utilisation with over 80% of the cohort reporting a worry about how their information would be used.

The themes of both long-term condition cohorts are very similar with some variation, particularly in relation to the impact of cost and isolation for this younger cohort.

### 3.3.6 CANCER PATIENTS

15 patients reported having Cancer during the survey. 14 responded to the question relating to their use of the internet for health purposes. 7 (50%) of these respondents stated that they used the internet for health purposes and 7 did not.

Of the 7 who did not use the internet for health services:

- ▼ 2 (28.57%) did not have access to a PC or Smartphone
- ▼ 2 (28.57%) did not trust health information on the internet
- ▼ 3 (42.86%) did not know how to use the internet
- ▼ 4 (57.14%) were not confident using the internet
- ▼ 2 (28.57%) had no interest in using the Internet
- ▼ 3 (42.86%) worried about who could access their data
- ▼ 3 (42.86%) worried about how their information was used
- ▼ 2 (28.57%) had an impairment that limited their access to the internet
- ▼ 2 (28.57%) felt isolated and lonely.
- ▼ 3 (42.86%) were aged over 75
- ▼ 5 (71.43%) were concerned about their data being shared inappropriately.

It is difficult to draw any firm conclusions around the impact of cancer on a patient's utilisation of digital health tools as this cohort skipped many of the questions on the benefits, value and risk of digital health tools.

### 3.3.7 ADULTS WITH SEVERE AND ENDURING MENTAL ILLNESS (SEMI)

24 respondents recorded having a Severe and Enduring Mental Illness (SEMI) such as Bi-polar disorder or Schizophrenia.

Over 75% (10) of the cohort identified as White with 2 recording an ethnicity of Asian. 8 of the group were female (61.54%). Over 75% (10) of this group were aged between 25 and 54, with no one in the cohort aged over 65.

Of this group, 13 (54.17%) did not use the internet for health services. 4 (30.77%) stated the cost as primary obstacle to their use of the internet for health, with the same number worried about how their information is used. Many of the additional responses were not completed by this group.

6 (46.15%) of this cohort reported being Isolated or lonely. 3 of the group registered that they valued the benefits of digital health tools, but the bulk of the cohort 11(84.62%) reported that they would be very worried about how their information was used.

Given the sensitive nature of this clinical condition, it is to be expected that privacy and confidentiality would be of particular concern to this cohort and the survey responses for this group would appear to bear this hypothesis out.

### **3.3.8 ADULTS WITH A LEARNING DISABILITY**

There were 7 adults who reported having a learning disability in the survey, of which 4 (57.14%) were between the age of 15 to 24. No- one within this patient cohort was older than 74. 5 (71.43%) members of this group reported that they felt isolated and lonely.

5 (71.43%) used the internet for health services and all 5 reported that they were confident when using the internet. 3 reported that they sometimes need help to access the services, with 2 of those saying that they did not get the help they needed. This cohort demonstrates a very positive attitude to digital health tools throughout the survey with comparatively high levels of utilisation for many of the digital tools listed.

For example, 3 (42.86%) report using Apps, 2 use Wearables, 1 has some Health Sensors in their home, 3 book appointments online, 3 would use Skype to talk to their clinicians, 3 use the repeat prescription online ordering services and to access online health information.

The convenience of online services appeal to this group, with 5 (71.43%) reporting that appointments happening at a time convenient to them would be of high value to them, as is the choice of who they can see and a choice in where they have to be seen. This group is less concerned with worries around internet utilisation and have not recorded significant worries from the list provided in many cases.

Generally, it appears that this cohort in particular is keen to utilise and engage with digital health services, but there is support needed to enable them to do this and that support is not always available as needed.

## 4. OBSTACLES TO DIGITAL HEALTH USE

In a series of follow-up questions designed specifically for those who reported that they do not use the internet for health services, the survey tried to identify reasons behind this.

### 4.1 KEY OBSTACLES

Of the 277 people who recorded that they do not use the internet for health and wellbeing services, 268 provided some insight into the barriers that prevent them from doing so. These obstacles are listed in the table below.

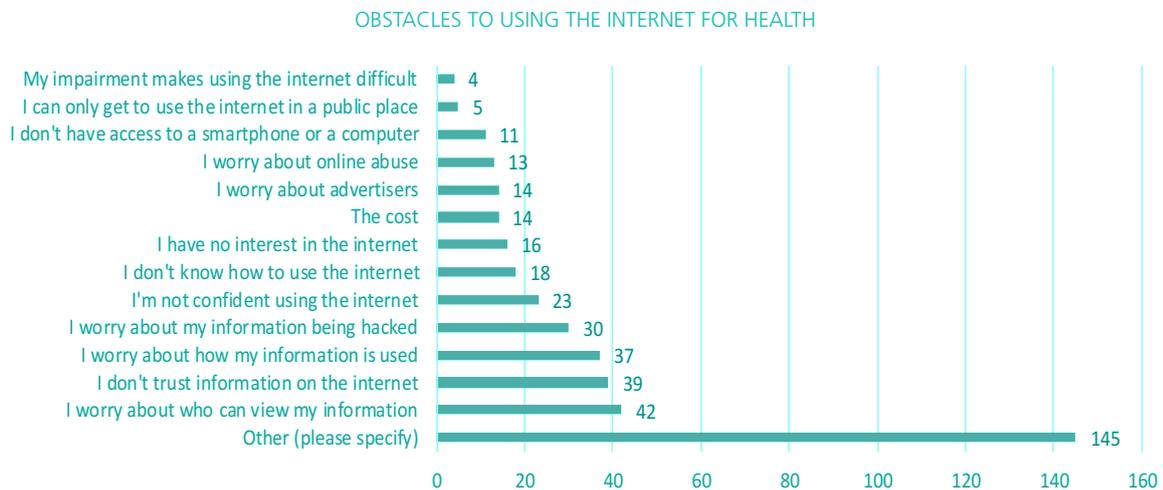


Figure 11

Key obstacles to their use of the Internet for health highlighted by these respondents were:

- ▼ 42 (16%) people were worried about who was viewing their information
- ▼ 39 (14.5%) people did not trust Information from the internet
- ▼ 37 (13.8%) were concerned about how their information is used
- ▼ 30 (11.2%) had a fear of being Hacked
- ▼ 41 (15.3%) expressed a lack of confidence or skills in using digital health services
- ▼ 16 (5.9%) suggested that their ability to gain access to the Internet was limited through a lack of technology

These concerns in relation to the fear of data being accessed, or sold inappropriately, is a key worry that is also raised in later questions.

In addition to the suggested obstacles, 145 people left specific comments in relation to the things that prevented them from accessing the internet.

The key themes that arise from this collection of comments were:

- “Face to Face is ALWAYS best”
- “Don’t know what NHS services are available to book online. The NHS info is not great. Most services are unresponsive.”
- “I have had no need to access health and care services”
- “relevant services aren’t available”

These selected comments are reflective of the main themes that are addressed in the comments section and highlight:

- A cultural resistance to moving away from a trusted face-to-face relationship with a clinician
- A sense that the NHS does not promote NHS digital health services very effectively
- That people will generally only engage with these services when they are ill.

All of these themes need to be taken into account when a public engagement strategy is being developed to drive the uptake of digital health services.

## 4.2 CONFIDENCE IN USING DIGITAL HEALTH SERVICES

When asked if they were confident in using the Internet to access Health services, 531 provided a response and 332 did not leave a response.

472 out of 531 (89%) responses stated that they were confident when using the internet. 59 reported that they were not confident.

Of these 59 individuals, over half of these respondents (32) were over the age of 45 and 34 were female. Unusually, 42 of this group had Higher-level Educational Qualifications above degree level. 36 were White.

In a series of follow-up questions, 82 out of 531 (15%) responders felt that they needed help to access internet services. Of this cohort who had identified that they needed support to access digital health services, 53 (65.4%) felt they do not get the help they need. This response level was further clarified when they were asked if they knew where to go to get help, 39 people reported that they did not know where to go to get the help they needed.

This again highlights that there is much work to be done to ensure that the general population understand what digital health services are available and how to access them.

### 4.3 CONCERNS ABOUT DIGITAL HEALTH SERVICES

Respondents were provided with a selection of key issues relating to digital health and care services and asked to rate their likely concerns, where 1 was not likely to be concerned and 5 was highly likely to be concerned. The responses are presented below.

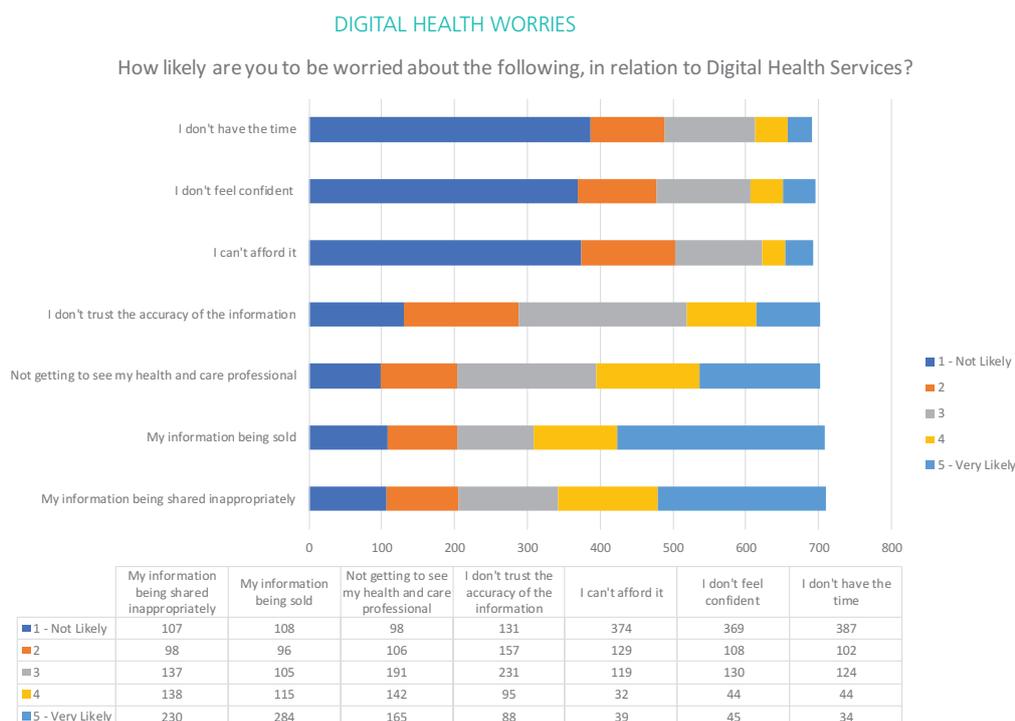


Figure 12

The percentage responses are shown in the table below.

How likely are you to be worried about?	1 – Not Likely	2	3	4	5 – Very Likely
My information being shared inappropriately	15.07%	13.80%	19.30%	19.44%	32.39%
My information being sold	15.25%	13.56%	14.83%	16.24%	40.11%
Not getting to see my health and care professional	13.96%	15.10%	27.21%	20.23%	23.50%
I don't trust the accuracy of the information	18.66%	22.36%	32.91%	13.53%	12.54%
I can't afford it	53.97%	18.61%	17.17%	4.62%	5.63%
I don't feel confident	53.02%	15.52%	18.68%	6.32%	6.47%
I don't have the time	56.01%	14.76%	17.95%	6.37%	4.92%

Figure 13

The concerns expressed here covering inappropriate use of their information and a lack of face to face contact with their clinicians reflect the issues expressed as obstacles to internet utilisation in previous questions. In each of the top three responses 70% or more of the respondents were concerned about those issues as a priority.

This reflects broader public concerns about Privacy and Confidentiality of their health data. A lot of work is taking place nationally to understand how to support better communication with the public around why sharing their health data could benefit their own health, the health of others and to address the fears people have in sharing this data at present.

This lack of trust was suspected to be a key factor holding back public engagement with digital health services and these survey results appear to support that contention.

## 4.4 DATA SHARING

A follow-on question, relating specifically to the sharing of patient identifiable data was asked in the survey.

How likely would you be to share identifiable data with the following? (Where 1 is 'Not Likely' and 5 is 'Very Likely')	1	2	3	4	5
Sharing them with NHS organisations	19.17%	8.73%	15.74%	23.46%	32.90%
Sharing them with pharmaceutical research companies	55.71%	17.43%	13.29%	6.14%	7.43%
Sharing them with university clinical researchers	36.48%	16.02%	19.17%	14.02%	14.31%
Sharing them with health and wellbeing Apps	50.64%	16.17%	16.60%	8.44%	8.15%
Allowing selected family members to have access to them	35.77%	12.59%	20.03%	14.31%	17.31%
Allowing selected carers to have access to them	33.86%	14.41%	21.04%	13.40%	17.29%

Figure 14

It is clear that, while most people are broadly happy (over 70% more likely than unlikely) to share their identifiable data with NHS Organisations, all other options presented were highly unlikely to be acceptable to the respondents.

This level of concern around data sharing is undermining the NHS' ability to undertake research and analysis to understand the efficiency, effectiveness and efficacy of health services. It is impeding innovation and limiting new data sources generated from digital health technology. Such concern is also impacting on the NHS' ability to drive new research in drugs and treatments that could be beneficial to many.

Digital health strategies will have to include plans to address this issue, as a lack of access to person level data can negatively impact on the ability to integrate services across organisational and professional boundaries.

## 5. OPPORTUNITIES FOR DIGITAL HEALTH SERVICES

---

To balance the concerns and issues that have been raised through these questions, a range of questions relating to people's perceptions around the positive potential of digital health services was included. These questions looked at the range of digital health technologies available and investigated people's preferences for those services.

In addition, we asked a series of questions relating to the benefits of digital health technology to try and identify what positives could be built on within a digital health service strategy.

The results from these questions will be presented in this section.

### 5.1 ATTITUDES TO SPECIFIC DIGITAL HEALTH SERVICES

A series of questions were asked to identify which digital health services and technologies were most likely to be considered beneficial to the public. The responses from these questions highlighted the following attitudes.

#### 5.1.2 ONLINE HEALTH, WELLBEING OR HEALTH CONDITION INFORMATION

When asked if they would use the internet to access health information, 483 people responded and 380 people skipped the question.

Of those who responded, 451 confirmed that they would use the internet to access this information. 301 of these respondents listed the NHS as their primary source for this information, illustrating that trust in the NHS remains a critical factor in assuring individuals the information they receive is valid and safe.

Of those who do use the internet for health information, 82% would be more likely to use the internet for health information if there was NHS assurance attached.

#### 5.1.3 BOOKING ONLINE APPOINTMENTS

475 people responded to the question relating to booking health appointments online. Of these, (43.16%) 205 already use this service and 270 do not.

For those using the service, 97% felt it was a valuable service. For those who do not currently use this service, over 93% said they would be likely to use the service if it was available.

This highlights a significant appetite for greater access to the ability to book health appointments online.

#### **5.1.4 USING VIDEO TECHNOLOGY FOR ONLINE HEALTH CONSULTATIONS**

When asked whether they would use video conferencing technologies like Skype or FaceTime to engage in online consultations with their clinicians, 475 responded to the question and 388 skipped it.

Of the 475 respondents, 342 (72%) confirmed that they would be happy to utilise this digital service.

#### **5.1.5 ORDERING REPEAT PRESCRIPTIONS ONLINE**

When asked if they would be prepared to order repeat prescriptions online, 474 people responded and 389 skipped the question.

Of the respondents, 378 (79.75%) recorded that they would use this service if it was available. 96% of these respondents also confirmed that this was considered to be a very valuable service.

Of the 96 people who reported not using this service, over 90% (86) stated that they would use this service if it were available.

#### **5.1.6 ONLINE HEALTH FORUMS**

471 people responded to the question asking if they would engage with online health forums and 392 skipped the question.

Of the 471 respondents, 384 (81.53%) stated that this was not a service they currently use and 87 (18.47%) reported their involvement in online health forums.

Of the 87, 84 (96.5%) reported that this service was useful to them. Of the 384, only 19% reported that they were more likely to use this service if it was available. This is significantly lower than many of the other digital services suggesting that people do not see online health forums as a key attraction in relation to digital health services.

### **5.1.7 ACCESSING YOUR HEALTH RECORDS**

When asked if they use the internet to access their health care records, 467 people responded and 396 skipped the question. Only 193 (41.33%) of the respondents currently access elements of their records online and 274 (58.67%) do not.

Of those who use this service over 97% report it as being a useful service. Of those who currently do not use this service, just over 87% said that they were likely to use this service if it was available.

### **5.1.8 ACCESSING MEDICAL TEST RESULTS ONLINE**

When asked if they accessed medical test results online, 461 people responded and 402 skipped the question.

Of the 461 who responded, 409 had not used this service, but 90% of them said they would be likely to use this service if it were available.

Of the 52 people who reported using this service, over 96% said it was useful to them.

### **5.1.9 HEALTH AND WELLBEING APP UTILISATION**

When asked if they used Health and Wellbeing Apps to support their health and wellbeing, 457 people responded and 406 skipped the question.

Of the 457 respondents, 277 (60.61%) reported using Apps and over 94% of those people felt that these Apps were useful to them. Of the 180 people who reported not using Apps, 75% said they would be likely to use Apps in the future.

### **5.1.10 WEARABLE ACTIVITY TRACKER UTILISATION**

When asked if they use Wearable activity trackers, 456 people responded and 407 skipped the question.

156 (34.21%) respondents said that they used wearable activity trackers and over 95% of this cohort believed the wearables were useful for them.

Of the 300 people who do not currently use wearables, 176 (59.77%) said that it was likely that they would utilise wearable technology in the future.

### 5.1.11 DOMESTIC HEALTH SENSORS

When asked if they currently used health sensors or monitors in the home, 454 people answered and 409 skipped the question.

Only 18 (3.96%) of respondents had sensors or monitors in their home, but 88% of these reported that the technology was useful to them. Of the 436 people who do not currently use sensors or monitoring technology in their homes, only 15% said they would be likely to use these technologies in the future.

## 6. BENEFITS OF DIGITAL HEALTH TECHNOLOGY

---

A series of questions were asked to understand what individuals perceived as being the key benefits of digital health services. Respondents were supplied with a list of possible options and asked to rate, on a sliding scale of 1 to 5 where 1 was equal to Low Value and 5 was equal to High Value, which benefits they valued the most. 720 people responded to this question and 143 skipped the question. Not all respondents valued all of the benefits but the specific responses to each benefit are listed in the table below (see figure 15).

All the benefits listed within the Survey question were considered to be valuable to the vast majority of respondents, with over a third of respondents to each question ratings the benefits very highly.

- ▼ Saving money was of least concern to 25% of respondents suggesting cost is not a key issue.
- ▼ Saving time and driving convenience were seen as the most valuable elements

Respondents were also asked to rate a series of factors that would make them more likely to use digital health and care services. For this question, 697 people responded and 166 skipped the question (see figure 16). The vast majority of respondents (c. 80%) said that if their data security was guaranteed they would be more inclined to use the internet for health. This was identified as the biggest single factor holding back engagement with digital health services.

Clinical recommendation and NHS assurance of health data online were also considered to be important factors in assuring people to use digital health services online.

How highly do you value the following digital health benefits?	1 – Low Value	2	3	4	5 – High Value
Saves me time	8.51%	1.99%	12.77%	19.29%	57.45%
Saves me money (for example travel costs)	17.81%	7.83%	20.37%	17.09%	36.89%
Happens at a time I choose	6.65%	2.40%	11.74%	20.93%	58.27%
Means I can choose who I see	12.16%	6.15%	23.32%	21.46%	36.91%
Let me choose where I am seen	10.59%	4.86%	18.60%	26.18%	39.77%
Helps me manage my condition	12.50%	5.89%	22.41%	22.56%	36.64%
Keeps me well	11.83%	5.92%	23.67%	21.79%	36.80%
Remembers me and my choices	12.37%	5.18%	20.72%	26.04%	35.68%
Improves my communication with my health and care professionals	12.89%	6.30%	21.49%	22.92%	36.39%
Widens my choice of health and care services	11.43%	6.71%	22.43%	23.43%	36.00%
Increases the speed of decision making	10.29%	6.09%	20.87%	20.87%	41.88%
Increases the speed of information sharing	10.73%	5.58%	17.02%	22.75%	43.92%
Helps me to keep control of my health and wellbeing	10.30%	3.72%	21.32%	22.17%	42.49%

Figure 15

What factors would make you more likely to access Digital Health Services	1 – Not Likely	2	3	4	5 – Very Likely
If I could access them in a GP Surgery	37.16%	11.79%	18.66%	13.58%	18.81%
If my family could use them for me	46.02%	11.13%	20.00%	9.62%	13.23%
If there was a stamp of approval from the NHS	14.96%	6.22%	18.37%	25.04%	35.41%
If I could guarantee my information was safe	7.51%	3.24%	9.28%	22.39%	57.58%
If my clinician recommended them to me	11.59%	6.69%	21.84%	25.85%	34.03%
If a trusted health or care professional helped me get started	21.77%	12.91%	25.23%	18.47%	21.62%
If it was cheaper to get online	32.23%	9.49%	20.93%	14.61%	22.74%
If I could get free training	38.28%	12.71%	20.88%	11.35%	16.79%
None of the above	61.54%	3.08%	26.92%	4.23%	4.23%

Figure 16

## 7. OPPORTUNITIES FOR DIGITAL HEALTH

This survey has provided a sense that there are a small number of critical issues that are currently holding back public engagement with digital health services, but also that there is an underlying interest from the public in engaging with these services in the future. Some of these issues are already anecdotally understood, but the survey responses appear to provide a more robust evidence base to confirm that the anecdotal evidence is valid.

WHAT FACTORS WOULD IMPROVE YOUR LIKELIHOOD TO USE DIGITAL HEALTH?

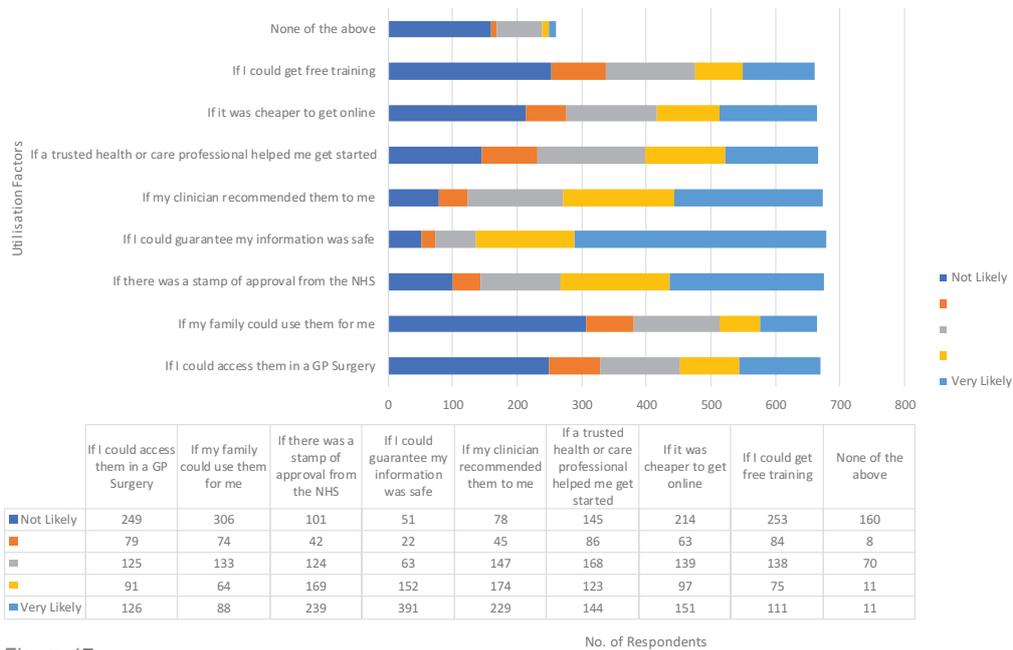


Figure 17

A set of common themes have been identified that can form the basis for the development of Digital Health Services across London.

There are a series of key headline messages that we can call out from the survey response. At present, digital health and care services are not being utilised to their full capacity. The survey responses provide some insight into the issues preventing more robust engagement:

- ▼ People are not motivated to use Digital Health services until they are ill themselves
- ▼ People are not sufficiently aware of the potential of digital health services to promote wellbeing, illness prevention and improved self-management of long-term conditions
- ▼ The public are not sufficiently aware of the digital services that already exist
- ▼ The public are concerned about their privacy and confidentiality being undermined online.
- ▼ Culturally, many people are uncomfortable about losing the face to face relationships with their clinicians
- ▼ Many hard to reach populations will need support to be able to access the full range of benefits of digital health technology

These issues are common challenges when technological advances disrupt traditional industries. There is a body of experience gained when other industries and health economies have been through these changes that the NHS in London can draw upon when addressing these challenges.

For example, there is significant national work being undertaken to understand issues around patient attitudes for consent to share their electronic data and how to communicate with the public to promote greater understanding of the risks and benefits associated with that data sharing. In particular, the National Target Architecture programme and Connected Health Cities in the North of England are focused on understanding and addressing issues related to the development and introduction of new digital technologies and innovations.

Some of the work being undertaken and the learning emanating from it can be accessed via the links below to support the London teams to address the issues raised within this survey.

- ▼ <https://www.connectedhealthcities.org>
- ▼ <https://www.england.nhs.uk/digitaltechnology>
- ▼ <http://www.interopen.org/content/Interoperability%20Summit%20-%20Emerging%20Target%20Architecture%20v1-0.pdf>

On the positive side, the survey highlights some key opportunities for improvement teams within the London region.

- ▼ Where people are already using digital health services, they overwhelmingly value these services
- ▼ Where people are not currently engaged with digital health services, there is a clear appetite to engage with these services in the future.
- ▼ There are clear preferences outlined within the survey responses about which digital services patients value most, with online appointment booking and online repeat prescription ordering highly valued by people, whereas the development of online health forums for example is not as highly valued as a future service. This enables service improvement teams to prioritise service development.
- ▼ The public understand that there are potentially many benefits to them if they can access digital health services, which suggests that they would engage if their primary concerns are addressed.

Taken together, these key messages should provide encouragement for improvement teams that the public will engage with digital health services if the correct levels of assurance around the safety and security can be delivered.

## 8. CONCLUSION

---

This survey has provided a sense that there are a small number of critical issues that are currently holding back public engagement with digital health services, but also that there is an underlying interest from the public in engaging with these services in the future. Some of these issues are already anecdotally understood, but the survey responses appear to provide a more robust evidence base to confirm that the anecdotal evidence is valid.

A set of common themes has been identified that can form the basis for the development of digital health service improvement plans.

There are a series of key headline messages that we would draw from this report. At present, digital health services are not being utilised to their full capacity. The survey responses provide some insight into the issues preventing more robust engagement:

1. People are not motivated to use digital health services until they are ill themselves – This is an understandable outcome, but one which needs challenging as many digital tools are effective in relation to prevention and the promotion of more health focused lifestyles. Teams should aim to engage with the public around digital health services before those services are needed to gain additional benefits from digital health tools.
2. People are not sufficiently aware of the potential of digital health services to promote wellbeing, illness prevention and improved self-management of long-term conditions. The NHS has much work still to do to inform citizens about the range and capabilities of digital health tools to support self-management of health conditions.
3. People are not sufficiently aware of the digital services that already exist. As above, there is still a lot of work to be done to ensure that digital services that already exist are promoted and marketed to the appropriate user communities.
4. People are concerned about their privacy and confidentiality being undermined online. This survey highlights that this issue is a critical obstacle preventing public take up of digital health services. Data confidentiality is a big concern for many people and needs careful consideration when digital health services are being designed and commissioned.
5. Culturally, many people are uncomfortable about losing the face to face relationships with their clinicians. This issue recurred several times within the survey and highlights the importance of the 'non-technical' factors that need to

be taken into account when developing new digital health services. Ensuring that citizens understand that digital health tools are there to support current delivery practices and that the clinical delivery process cannot be completely automated, or digitised, will be a key factor in project success.

6. Clinical recommendation and NHS assurance of digital services are important factors in digital service take up. The NHS continues to be a highly valued and trusted brand with the vast majority of citizens and NHS assurance of digital services still carries a lot of weight when people are choosing digital health tools. Knowing that clinicians have provided a stamp of approval around, or are happy to recommend, the utilisation of digital health tools, will encourage more people to engage with these tools. Any improvement plans need to ensure that there is significant clinical buy in to the plans and that clinicians are prepared to champion the services being offered.
7. Many hard to reach populations will need support to be available to realise the full range of benefits of digital health services. It is often the groups that are hardest to reach that have the most potential to benefit from digital health. The work of the Good Things (previously Tinder) Foundation and NHS England's 'Widening Digital Participation' programme has produced some valuable reports to highlight both the importance of connecting with those who are socially and digitally excluded. These reports show the potential benefits to the health service if these groups can be activated to manage their own health better. This work should be accommodated into any local improvement plans.

There is a body of experience gained when other industries and health economies have been through these changes that the NHS in London can draw upon when addressing these challenges. For example, there is significant national work being undertaken to understand issues around attitudes for consent to share electronic data and how to communicate with the public to promote greater understanding of the risks and benefits associated with that data sharing. All this learning can be accessed and applied to address the issues raised within this survey.

On the positive side, the survey highlights some key opportunities for health improvement teams within the London region.

Where people are already using digital health services, they overwhelmingly value these services. This suggests that the biggest challenge around digital health is driving up engagement with digital health tools and services, because once people start using these tools the survey suggests that they respond very positively in the majority of cases. A large proportion of survey respondents do not currently engage with these tools, but where the survey respondents did already engage, there was a

very high level of satisfaction with the tools.

Where people are not currently engaged with digital health services, there is a clear appetite to engage with these services in the future. In particular, there are a range of services such as online appointment booking and the ability to renew prescriptions online that appear to be very attractive to people. There is no question that there is an untapped market of people who would be happy to use digital health services and who would benefit from doing so. They are waiting for our health and social care services to promote and provide a broader range of digital health services and tools.

There are clear preferences outlined within the survey responses about which digital services patients value most, with online appointment booking and online repeat prescription ordering highly valued by patients, whereas the development of online health forums for example is not as highly valued as a future service. This enables improvement teams to prioritise the services they need to develop first.

The public understand that there are potentially many benefits to them if they can access digital health services, which suggests that they would engage if their primary concerns are addressed

Taken together, these key messages should provide encouragement for health improvement teams that the public will engage with these services if the correct levels of assurance around the safety and security of digital health services can be delivered.

## 9. RECOMMENDATIONS

---

In the light of these findings, this report makes the following recommendations to all health improvement teams.

Adopt a citizen-centric approach to the development of new digital health services - Meaningful patient engagement is a critical element of all digital service planning, as many of the key obstacles to success will relate to public attitudes, motivations and behaviours as well as the specific capability of the technology

Ensure that public and clinical engagement plans are in place to understand:

- ▼ End user attitudes towards Privacy, Confidentiality and Consent for Data Sharing
- ▼ How new digital health technologies provide assurance of clinical validity/safety

- The challenges in changing the traditional 'clinician/patient' relationship from the public and professionals' perspectives
- How to communicate the benefits and risks of engaging with new digital health tools and services to the public and front-line professionals.

Health improvement teams need to ensure that implementation plans consider:

- Which digital health tools are most relevant to a specific population cohort (Age / Gender / Ethnicity / Location / Health Status)
- If their plans ensure access for 'hard to reach' and 'socially and digitally excluded' groups (e.g. Elderly / Isolated / Disabled / Deprived)
- How to improve wider participation through improved digital health literacy
- Research and choose digital health tools that are most appropriate to specific populations and consider using multiple digital tools in parallel to ensure coverage of wider community groups. For example, Apps that will work well for older patients with a given condition, may not interest younger patients with the same conditions.
- Understand, and communicate, the benefits and risks of each digital tool within its own applied context and ensure that clinical, technical and safety assurance is provided with all newly developed digital health tools.

This is an exciting time for health services as continual advances in the development of digital health technologies are beginning to drive improvements in population health and wellbeing, self-management and in the effectiveness of personalised medicines and treatments.

To extract the full potential of these technologies will, however, involve health improvement teams balancing the enthusiasm for new technology alongside understandable personal resistance to change. This survey has illustrated that successful delivery of digital health services will be challenging, unless the attitudes of the public to these tools is understood and the support and assurance they need can be provided effectively. If this can be achieved, the survey suggests that many people will embrace these technologies to the benefit of their own health and wellbeing and that of the broader health economy.

ORCHA – June 2017

## 10. APPENDIX 1 – RESPONDENT DEMOGRAPHICS

A total of 863 responses were collected during the ‘live’ collection phase of the survey.

### GENDER

Of the 863 respondents, 694 recorded their gender within the survey. 169 people did not record a response to this question.

Of this cohort of 694 respondents:

- ▼ 456 were Female (65.71%)
- ▼ 225 were Male (32.4%)
- ▼ 8 preferred not to record their gender (1.15%)
- ▼ 5 people identified as Transgender (0.72%)

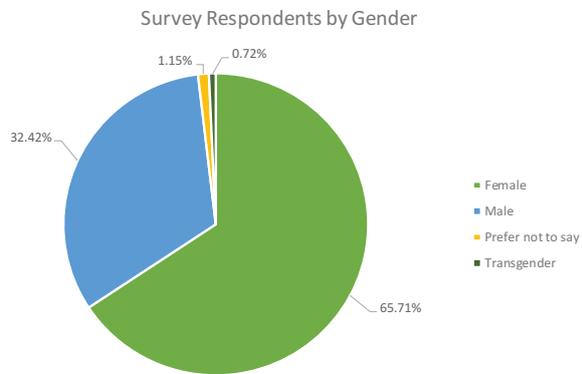


Figure 18

We assess whether an individual’s gender impacts on their attitudes to specific elements of Digital Health technology utilisation at each stage of the report.

### RESPONDENT AGE

692 respondents provided a response to the survey ‘Age’ question. 171 people did not supply their age. 72% of the survey respondents were aged between 25 and 75, which we would expect for a survey of this nature that focusses on the use of technology and the internet.

Age Band	% of Response	No. of Responses
15 to 24	5.78%	40
25 to 34	16.76%	116
35 to 44	19.94%	138
45 to 54	24.28%	168
55 to 64	18.64%	129
65 to 74	10.40%	72
75 to 84	2.89%	20
85 and over	0.87%	6
Under 15	0.43%	3
<b>Grand Total</b>	<b>100.00%</b>	<b>692</b>

Figure 19

The grouping by age bands of the responses is shown in the table below.

Only 3.76% of respondents (26 out of 692) were aged 75 or over, which highlights the difficulty in engaging the older population through digital mediums, as many older people are not regular users of the Internet, or Smartphone technologies.

This age group, however, is a key demographic for health and social care services, as these citizens are typically living with multiple long-term health conditions and are disproportionately high users of health and social care services. Many older citizens could benefit greatly from the opportunities available through digital health technologies but they are difficult to reach and need support to ensure they can access these services.

The output from this survey suggests that there remains much work to be done to ensure that the older members of our population can benefit fully from digital health. To ensure the voice of this critical group can be heard will, however, involve local engagement on a face to face basis to better understand their attitudes towards new technologies and to ensure that they are provided with the support they will need to access digital tools and services appropriately.

The respondent split for other age groups reflect the broader demographic split of a regional population. Whether this is an accurate reflection of the age split of the London population will need to be confirmed by comparing this level of survey response with the local knowledge of population age splits.

The lower levels of engagement with this survey from those aged under 35 is also to be expected as engagement in health and social care issues does not tend to be of critical interest to a population that is generally healthy and active.

Therefore, while we would expect this section of the population to be highly engaged with digital technologies, the relatively low levels of response to the survey from this group is consistent with their relative distance from personal health issues.

There were in addition three responses from individuals under the age of 15. This age group is often neglected in terms of health and social care engagement, but is a critical age group to target for health education to ensure that their lifestyle choices are well informed from an early age. However, this survey, as a macro-level analysis, was designed to include but not to specifically address this age cohort. To drive engagement with this age group, survey delivery would benefit from being more

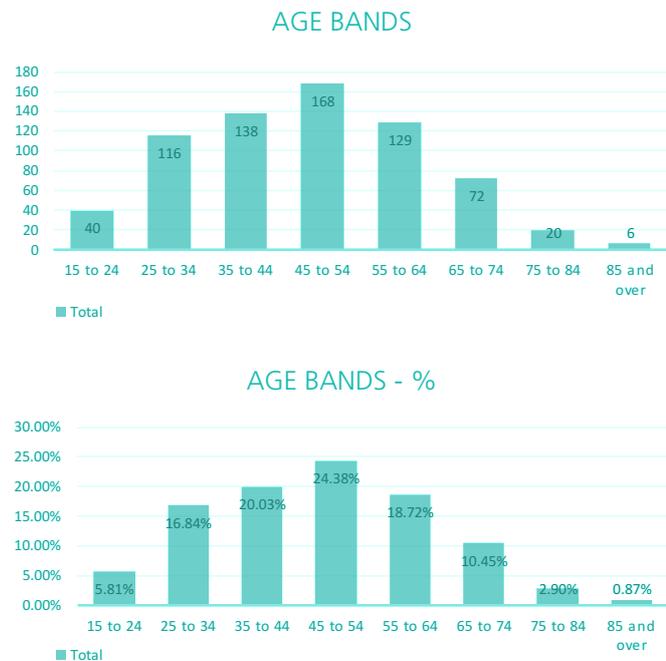


Figure 20

targeted on a range of social networking mediums, beyond Facebook and Twitter, that young people engage with (e.g. Instagram, Snapchat) and through schools and young people’s health services.

Health prevention themes like smoking cessation, exercise, diet and mental wellness are lifestyle areas that are well served by new digital technologies. Engaging with young people on these issues through digital tools at an early age has significant potential to drive more informed early health and wellbeing lifestyle choices among this key group, thus reducing demand on health and social care services in the future.

In addition, developments in the application of gaming theory in digital tools can be particularly effective in driving positive health outcomes for this age group, as the recent Pokemon Go craze highlighted.

The impact of an individual’s age on other elements of this survey, such as people’s attitude towards particular digital health services will be reviewed within each individual section. For example, we would expect younger people to be more open to embracing wearable and App technology than the older generations, and we would expect the older generation to be more concerned about privacy and data confidentiality than young adults. We will be investigating the survey responses against a set of common assumptions like this to assess whether these assumptions are broadly correct, or to understand where there is significant variation from expected norms.

The survey responses cover the key age ranges and provides adequate numbers in each age range to allow for a high- level understanding of the impact of age on digital technology uptake and utilisation.

## RESPONDENT ETHNICITY

692 respondents to the survey recorded their ethnicity, with the vast majority of these respondents identifying as ‘White’ (82%). 171 people did not record their ethnicity and 30 people utilised the ‘Other’ option.

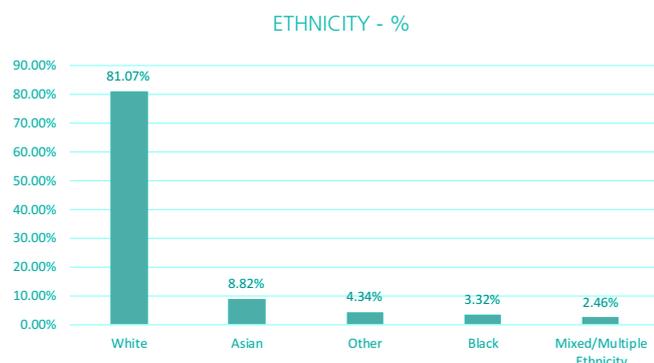


Figure 21

61 respondents identified as ‘Asian’ (8.82%), 23 identified as Black (3.32%) and 17 people recorded their ethnicity as ‘Mixed/ Multiple’ (2.46%).

30 people identified as an ethnic group other than those listed (4.34%) and they provided the following ethnicities within the comments section:

- ▼ Asian Spanish
- ▼ Black Spanish
- ▼ Cornish-Irish
- ▼ East African
- ▼ Egyptian
- ▼ Filipino
- ▼ Indian British from Africa
- ▼ Jewish
- ▼ Mexican
- ▼ Prefer not to say
- ▼ South African
- ▼ Spanish
- ▼ Turkish Cypriot
- ▼ White Mauritius

This level of response reflects the multi-cultural nature of the British population at this time, and the percentage ethnic splits are generally consistent with the 2011 census (ONS Ethnic Groups 2011) results.

The full breakdown of ethnicity is shown in the table below.

Derived Ethnicity	What is your ethnicity?	Total	%age of Respondents
White	White - English/Welsh/Scottish/Northern Irish/British	469	
	White - Any other White background	62	
	White - Irish	28	
	White - Gypsy or Irish Traveller	2	
	<b>White - Total</b>	<b>561</b>	
Asian	Asian - Indian	41	
	Asian - Any other Asian background	9	
	Asian - Pakistani	6	
	Asian - Chinese	5	
	<b>Asian - Total</b>	<b>61</b>	
Other	Other- please specify	17	
	Other ethnic group - Any other ethnic group	10	
	Other ethnic group - Arab	3	
	<b>Other - Total</b>	<b>30</b>	
Black	Black/African/Caribbean/Black British - African	12	
	Black/African/Caribbean/Black British - Caribbean	9	
	Black/African/Caribbean/Black British - Any other Black/African/Caribbean background	2	
	<b>Black/African/Caribbean - Total</b>	<b>23</b>	
Mixed/Multiple Ethnicity	Mixed/Multiple ethnic group - Any other background	8	
	Mixed/Multiple ethnic group - White and Black Caribbean	4	
	Mixed/Multiple ethnic group - White and Asian	3	
	Mixed/Multiple ethnic group - White and Black African	2	
	<b>Mixed/Multiple Ethnicity - Total</b>	<b>17</b>	

Figure 22

## LOCATION OF RESPONDENTS

The survey was developed by the HLP and NWL Team and targeted primarily at residents of London and its surrounding areas.

However, the online survey was marketed through the London team and by ORCHA, a North West based company through their social media accounts and the online survey did not prevent

those respondents who were resident outside the London region from completing the questionnaire. For this reason, not all respondents are from the London region.

Respondents were given the option of completing the first three letters of their postcode to ensure that analysis could be conducted using regional and local variations. 533 respondents completed the Postcode option.

These postcodes have subsequently been matched to a set of higher level regional areas using a national mapping of postcodes. This decision was taken as being more appropriate for analysis as the levels of returns for each individual postcode entered would not have provided a useful view for robust analysis.

The breakdown of regional responses is shown in the table below.

Regions	Count of Responses	% of Total Responses
London and the Home Counties	431	80.86%
North West	63	11.82%
Midlands	15	2.81%
South West	7	1.31%
South East	5	0.94%
Yorkshire and Humber	4	0.75%
North East	4	0.75%
Wales	2	0.38%
Scotland	2	0.38%
<b>Grand Total</b>	<b>533</b>	<b>100.00%</b>

Figure 24

RESPONSE BY REGION - %

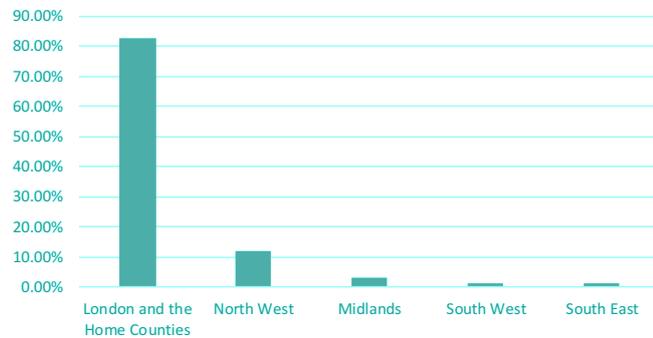


Figure 23

As expected, the majority of respondents are resident in London and the counties bordering Greater London.

Those who have responded from other regions are likely to have responded to ORCHA's sharing of the survey link through its social media channels. Though the survey is primarily focused on the London region, we have included the respondents from other regions in our analyses of the survey responses, as we believe they

will exhibit similar characteristics in the way in which they respond to digital health technology as those resident in London.

This level of London residents who have engaged with the survey suggests that the target population for the survey have received strong access to the questionnaire, but it is also worth noting that 326 respondents were not prepared to provide their postcode data. This level of non-response is in line with common concerns that people have over their data being collected and used in surveys of this nature. The reluctance to provide data that they believe could be used to identify them, or subject them to further involvement in future surveys, can often deter people from engaging fully with surveys.

The survey team took several steps to clarify to users that their data would only be used for the purposes outlined in the survey introduction and that no respondent would be identifiable from the data collected. However, this level of non-compliance suggests there remains a reluctance on the part of many to respond to surveys of this nature in a manner which they perceive could potentially enable their identification.

More detailed analysis on whether an individual's domestic location impacts on how they access, and relate, to digital health technology has the capability to provide further evidence to ensure that specific health needs within a community are properly understood. This could help health improvement teams to target appropriate services for specific geographies.

Research is showing that those who live in more deprived areas often have less access to the internet, smartphones and other digital technologies, and that this has a negative impact on their health, inclusion and response to digital health services.

- 5.9 million adults in the UK have never used the internet
- There are 4.1 million adults living in social housing that are offline
- The South East had the highest proportion of recent internet users (90%) and Northern Ireland was the area with the lowest proportion (80%)
- 27% of disabled adults (3.3 million) had never used the internet ( [www.21stcenturychallenges.org](http://www.21stcenturychallenges.org) )

Research suggests that there is a clear correlation between digital exclusion and social exclusion ([www.21stcenturychallenges.org](http://www.21stcenturychallenges.org)).

However, the spread of localities provided by this survey, allied to the fact that respondents were only asked to provide the first 2 to 4 digits of their postcodes, for privacy reasons, has meant that we cannot assign accurate mapping of levels of deprivation and socio-economic status to the location data collected in this survey.

All international and national demographic indices are built up from detailed full postcodes and cannot be mapped accurately when just the first digits are supplied.

In a region like London, where postcode areas with a high concentration of deprivation can exist side by side with

very wealthy communities it would be statistically misleading to utilise a broad demographic average as a measure of digital engagement. More detailed studies in this area may however be necessary to fully understand the impact of digital exclusion in the London area and how that impacts on the way the London residents utilise digital health tools.

% INTERNET UTILISATION FOR HEALTH BY REGION

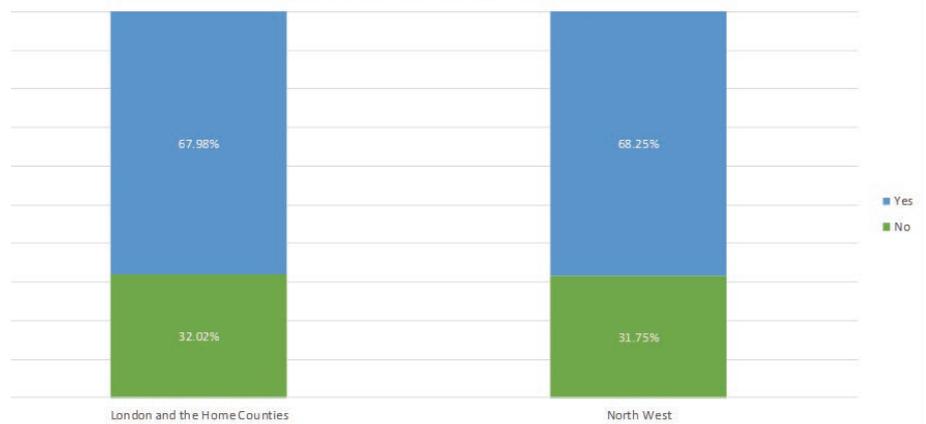


Figure 25

## EDUCATIONAL ATTAINMENT

690 people completed the question relating to Educational Qualifications and 173 people skipped the question.

Over 80% (653 out of 690) of respondents had education levels over and above Secondary level.

Educational Qualification	% of Respondents	No. of Respondents
Postgraduate or Further Degree	30.58%	211
Graduate Degree	30.43%	210
Professional Qualification	19.13%	132
Secondary/High School	10.72%	74
Vocational Qualification/ Apprenticeship	6.38%	44
Other (please specify)	1.59%	11
No formal education	1.16%	8
<b>Grand Total</b>	<b>100.00%</b>	<b>690</b>

Figure 26

Of those who had educational qualifications that were above Secondary Level, 71.25% (394) reported that they used the internet to access digital health services, whereas 28.25% (159) did not use the Internet for health reasons.

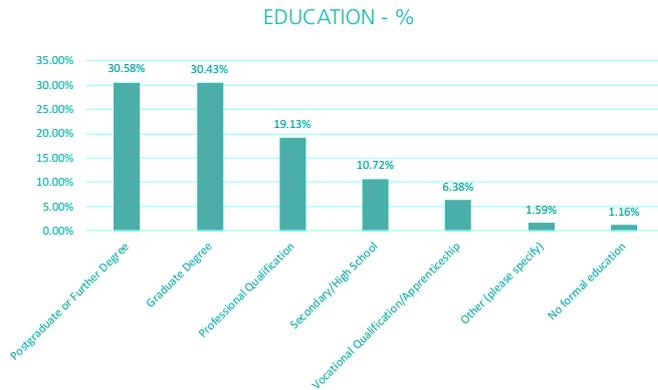


Figure 27

This is in stark contrast to those who had not received a third level education (126 respondents). This group were significantly less likely to use the Internet for health purpose. 51.59% (65) of these respondents said they do not use the internet for health issues, while 48.41% (61) reported that they did.

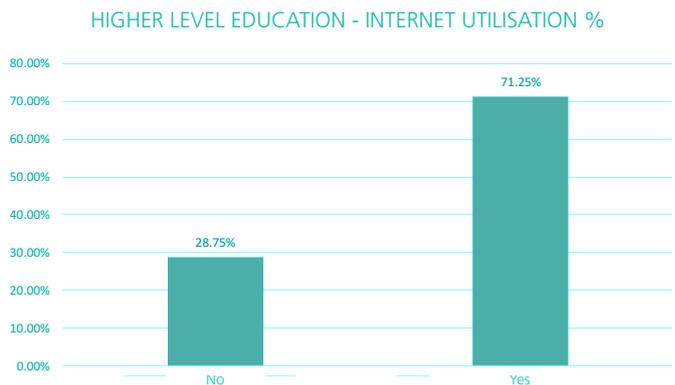


Figure 28

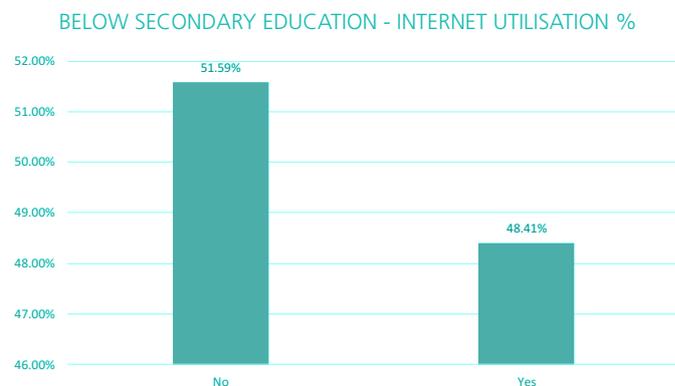
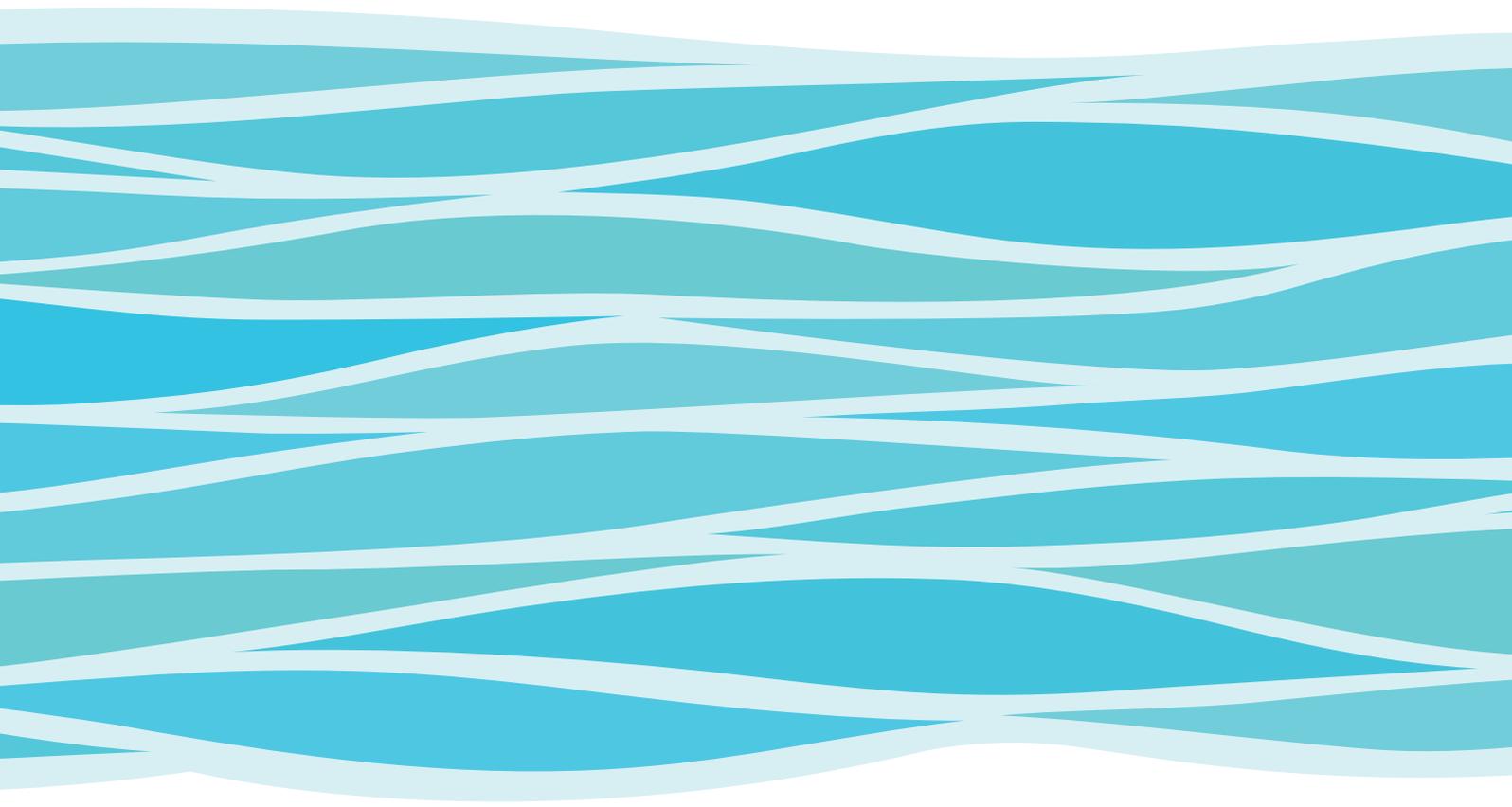


Figure 29

This discrepancy suggests that there may be merit in further research to fully understand whether lower levels of education are significant in driving digital tool utilisation.





Get in touch  
[hello@orcha.co.uk](mailto:hello@orcha.co.uk)