



Understanding Digital Exclusion across North Tyneside

Executive Summary - February 2023



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Please note that from July 2022, responsibility for commissioning healthcare services for North Tyneside transferred to the NHS North East and North Cumbria Integrated Care Board (ICB). In this report, we will refer to North Tyneside Clinical Commissioning Group (CCG) which ceased to exist upon the formation of the new organisation of NHS North East and North Cumbria ICB on the 1st July 2022.

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Background

Digital technology is a ubiquitous part of everyday living, however, not everyone can equitably access or use this technology. This inequity is particularly heightened in the North East of England, which currently has the largest gap between 'extensive internet users' and 'non-users' across the UK. Despite evidence of digital exclusion in the North East as a whole, there is currently very little known about the extent of digital exclusion and digital poverty across more local boroughs situated within North East England, including the borough of North Tyneside. For example, it is currently unknown as to the number of individuals without digital access in North Tyneside, the demographic of those without digital access in North Tyneside, or their experiences and workarounds to these issues. This lack of evidence impacts local (as well as regional and national) decision-making for cross-cutting policies and practices which increasingly encapsulate a 'digital future', for example, online access to health and social care systems as the preferred platform. Therefore, this study aimed to *explore and gain a more in-depth understanding of digital poverty across North Tyneside*. To achieve this aim, this study proposed to:

- Identify reasons for non-access to technology across North Tyneside
- Understand facilitators or barriers to using technology (access, skills, and perceptions of technology) across North Tyneside
- Map solutions to improving digital access / digital skills for residents of North Tyneside

Methods

This study involved a mixed-methods, cross-sectional design across two stages:

1. An all-residents' survey was disseminated across the whole of the North Tyneside population. A total of 9,181 of residents completed the survey successfully.
2. Focus groups ($n=3$) to further facilitate the inclusion of those at most risk of digital exclusion.

This study was approved by Northumbria University Ethics Online System (*Reference Number: 40123*) and Integrated Research Application System (IRAS) for health and social care/community care research (*Project ID Number: 304555*).

All-residents' survey

The study was pilot tested to ensure content validity and reliability of measurement before the final survey was disseminated. The survey was mailed using defined postcodes and a pre-paid envelope included both North Tyneside CCG and universities (Northumbria and Newcastle) logos. Additional information in relation to the purpose of the survey was printed on the envelope alongside an accessible contact number for any queries. Any resident living in North Tyneside was invited to participate. NHS North Tyneside CCG liaised and worked with care home management teams, as well as homeless shelters, to facilitate the dissemination of survey to individuals who may have been most digitally excluded. To improve accessibility and increase completion rate, the survey could be completed on paper, online, or with support from a member of the research team or North Tyneside Community and Healthcare Forum via telephone.

The survey (Stage One) was primarily composed of multiple choice and Likert scale questions but included an open-ended question at the end of the survey which allowed individuals if they had any other comments they wished to record.

The survey data were statistically analysed using a range of different statistical tests, including Chi-square and Pearson/Spearman's correlation, to test the hypotheses and determine significant relationships, and Logistic Regression to determine the predictors associated with digital exclusion. In addition, responses to the open-ended question were analysed using Content Analysis.

Focus Groups

After completion of Stage One, three Focus groups (Stage Two) were carried out with groups who are at high risk of digital exclusion, i.e., the deaf and hard of hearing community (n=3), young adults living in shelter homes (n=3), and women who experienced domestic violence (n=4). Focus group topic guides were developed based on findings from the all-residents' survey and slightly differed for each group.

Focus groups ran for 1-2 hours and were conducted in a community setting within North Tyneside. They were facilitated by two members of the team and a local facilitator (for the focus group with women who experienced domestic violence). The focus groups were audio recorded and transcribed verbatim. Data was analysed using Thematic Analysis.

Findings

Socio-demographic predictors of digital exclusion

Findings showed that increasing age was a predictor of digital exclusion with over 94% of digitally excluded residents of North Tyneside were over 60 years old. The digital divide *within* and *between* older citizens and the rest of the population is increasingly becoming wider and deeper. The findings evidenced other socio-demographic variables that predicted digital exclusion of North Tyneside residents; living in a smaller household, having lower, or no, educational attainment, having a lower income, and living with disability or sharing a household with another individual living with disability. These results are representative of wider national and international evidence. There were further socio-demographic factors that were shown to predict digital exclusion that have not been well examined in the literature or received by policy-making authorities; this study found that gender influenced digital exclusion, with females being more digitally excluded than males; those who were not in work were more likely to be digitally excluded than those in work, and interestingly, those who were concerned about their digital security were more likely to be digitally included.

Micro-geographical differences within digital exclusion

Findings indicate that residents across North Tyneside spend less time on the internet than the national population. However, this study has also evidenced the importance of micro geographical differences in predicting and understanding digital exclusion within North Tyneside. Typically, geographical differences as considered as urban vs rural, or North vs South, however, this study has demonstrated consistent patterns of digital exclusion based on micro geographical location across the North Tyneside borough. Despite the demographic predictors of digital exclusion presented above, residing in higher socio-economic geographical areas did not equate to being more digitally included, for example, residents within the Whitley Bay (North East) area reported least digital access, least use of technology, least digital confidence, and least digital skills across all localities. Contrastingly, residents in the North West locality reported most digital access, most use of technology, most digital confidence, and most digital skills across all localities.

Complexities across cohorts

Wider international evidence illustrates that whilst social inequities predict digital exclusion, digital exclusion also deepens existing social inequities. Those who are digitally excluded are often unable to reach and use digital information resources and increases the likelihood of

social inclusion. The focus groups (Stage Two) focused on three potentially digitally excluded groups: the deaf community, young people in sheltered homes, and women who have experienced domestic abuse. Focussing on these three specific cohorts illustrates the complexities of digital exclusion and digital use across cohorts, and individual circumstances. All three focus groups discussed positive uses of digital technology, including for accessible communication, daily services, and for security. However, they also highlighted concerns about digital living, including poor infrastructure and cost of mobile data, and the potential for abuse and security breaches online. Whilst the individuals in the focus groups were at risk of digital exclusion, it is important to note that all had access to and experiences of using digital devices.

Facilitators and barriers to digital use

Participants identified various facilitators and barriers to digital use focussing on systems, security, choice, and support provision.

Broadband infrastructure and cost were of huge concern and impacted the use of digital technology for many. Furthermore, online security and privacy were of concern and impacted the frequency of digital use, as well as the type of activity carried out online. Particularly, individuals were concerned about using financial and health services online in fear of security and data breaches.

Choice was hugely important. Participants in this study were concerned about reduced autonomy as a consequence of services being 'digital by default', or organisations offering limited offline access to services. It is critical that cohorts at risk of digital exclusion are heard and the benefits of digital technology / challenges to being digitally excluded are considered if there are to be societal change in digital living. Offering only non-accessible digital services, or only digital services, has the potential to deepen social inequities.

Participants made numerous suggestions to support residents in becoming, or remaining, digitally included. Some of these suggestions were through better infrastructure, specifically cheaper and more reliable broadband. Others made suggestions related to online privacy and security. This was a huge concern for many respondents and directly impacted the time spent on, and activities carried out, online. Supporting individuals to improve their online security systems, or knowledge, would be beneficial for users. Finally, numerous local training solutions were suggested, including, face-to-face classes, pop-in services, a telephone support line, or written information. Whilst many individuals suggested these training solutions,

less than 10% of respondents had attended a digital skills class in the last five years. It is critical that support is accessible, and the reach / marketing of these services extends to those who are digitally excluded.

Recommendations for policy and practice

1. Identification and inclusion of digitally excluded groups to inform decision- and policy-making processes.

As the results of this study indicate, digital exclusion is predicted by socio-demographic and micro-geographical variables; therefore, practice and policy initiatives should consider these characteristics and individual factors when making decisions.

Although UK governmental policies have long attempted to reduce Britain's digital divide across communities such as urban vs rural communities (1) and the regional gap between North East and South East England (2,3), micro-geographical differences are little considered. Identifying digitally excluded groups within communities can allow decision-makers and policymakers to better understand those requiring specific support. Such information is critical for adjusting decisions and formulating strategies to bridge or substantially reduce the existing digital divide.

2. Digital exclusion is a multi-factor phenomenon that requires an integrated and collaborative governance approach.

Illustrating differences across communities has identified that digital exclusion is a complex societal issue. It is important to identify nuances within communities, as well as individual circumstances, when supporting digital change. The diversity of factors predicting digital exclusion demonstrate the importance of local, regional, educational, financial, and healthcare institutions working together to tackle this issue. It is critical that agencies operate within an integrated governance framework, perhaps sharing data and strategies across organisations, across macro, meso, and micro levels to deal with such multi-factor phenomena.

It is recommended that all statutory organisations critically review their own practices and services in a way to reduce the risk and scale of digital exclusion that this study identified. For example, ensuring information is equally available online and offline. This would improve access to services and information for everyone, anywhere, and when they are needed.

3. Call for rethinking and reshaping policies/practices aimed at tackling social exclusion.

The existing bidirectional links between social disadvantages and digital exclusion further highlight the need for a rethinking and potentially reshaping of policies/practices aimed at tackling social exclusion. For example, the Future Digital Inclusion programme (4) has been developed and implanted to tackle digital access and lack of digital skills targeting those with 'low or no qualifications' or 'older retired'. More recently, the Department for Digital, Culture, Media, and Sport (2022) have delivered plans for UK Digital Strategy by highlighting the need for improving digital access and skills (5); however, they do not suggest or imply the links between the social inclusion across the UK and digital inclusion.

Despite some overlap between the proposed logistic models and other initiatives/programmes addressing some socio-demographic determinants of socially excluded groups that require support, the results of this study demonstrate the failure or ineffective implementation of these initiatives as there is still an increased risk of the digital divide. The existing social, geographical, and health-related differences within North Tyneside can contribute to the digital divide. Local and national organisations must collaborate to tackle this multifaceted issue of digital-related social inclusion in the same way as mentioned above.

4. The quality and affordability of digital infrastructure within the home and community must be addressed.

The quality, cost, and coverage of the digital infrastructure across North Tyneside, such as access to high-speed Internet and system support, has a substantial impact on residents' digital access.

Many respondents reported that the availability of reliable and affordable home broadband or mobile internet access at their residences has been challenging. This indicates the need for increased investment in facilitating access to home-based digital and mobile-based infrastructures covering all areas around North Tyneside, supporting the choice of working and learning from home during future lockdowns and restrictions.

Long-term policies are needed to support the availability and accessibility of affordable (or free) digital infrastructure within the home and community to improve internet access across North Tyneside and beyond.

5. *Provision of digital support services for North Tyneside residents.*

The findings have implications for developing the provision of various support services that facilitate all residents' digital access, use, skills, and confidence in using digital tools. These services can include, for example, the provision of educational support services or technical support services. This may be the development of new support services, as a direct outcome of this research, or increasingly accessibility and reach of existing services across the borough.

The findings from this study suggest the need to engage with local/regional organisations and service providers to further invest in the WiFi coverage and hotspot points within North Tyneside (e.g. on university campuses, shopping areas and local markets, urban parks, and residential communities). For those WiFi spots that already exist, it is recommended to work strategically with providers to increase their coverage area and digital services to ensure a consistently connected North Tyneside.

Another area of digital support would be to advertise the existing WiFi Hotspots and coverage in North Tyneside. For example, generating a simple location map showing public WiFi coverage and all currently available hotspots across North Tyneside would be useful. It is also important to ensure that users feel safe and secure when they are using WiFi hotspots.

Recommendations for future research

This study is one of the largest studies which examines digital exclusion. The breadth and depth of the data collected in this study is vast and can be used in different applications for different purposes. Further secondary data analysis should be carried out on this data to examine multiple factors, outlined below. This will provide an even deeper understanding of digital exclusion *within* the North Tyneside population, as well as nationally and internationally.

Within this study, ageing was an influential factor in explaining the status of digital exclusion. An inter-generational approach to data analysis can be carried out to identify generational gaps and patterns to digital exclusion. Furthermore, linear regression models can be applied to estimate the impacts of key factors contributing to use of digital technologies and internet across North Tyneside and understand how such impacts would vary within/across different generations, or micro-geographical data can be used to identify the digital inequalities within the area.

Little work has been done to examine digital exclusion across different cohorts, such as women who have experienced domestic violence. Further research should be carried out within these communities to further understand their complex experiences of digital exclusion / digital use. This will enable organisations to be in a stronger position to develop (and provide) tailored support services and close stakeholder collaboration with a focus on digital inclusion.

Finally, this study excluded an important section of the population—children and young people aged 11 to 18 years. In addition, very little is known about the extent of digital exclusion in children and young people in North Tyneside, the socio-economic/demographic profile of those without any or limited digital access, including the impact of digital exclusion of their parents/guardians. Therefore, future research efforts should focus on children and young people who are also at risk of digital exclusion.

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