Exploring differences in the use of technology to support health: a population survey in Wales

Dr Alisha Davies MSc PhD FFPH
Head of Research and Development
Dr Catherine Sharp, Lucia Homolova, Prof M Bellis
Method

- Nationally representative household sample.
  - 24% declined to participate.
- 1,240 individuals (16+ years) living in Wales.

Analysis

- Associations between demographics & health status with use and perceptions: Chi2, Logistic regression.
- Adjusted proportion determined using generalised linear model.

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Demographics</th>
<th>Health status</th>
<th>Access to technology</th>
<th>Use of technology to support health</th>
<th>Perceptions on the use of technology to support health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age, Sex, Deprivation, Education, Employment</td>
<td>Self-reported health</td>
<td>Type of mobile phone used</td>
<td>Perform activities/tasks</td>
<td>Beneficial or detrimental to health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mental health</td>
<td>Access to the internet at home</td>
<td>Monitor health</td>
<td>Motivators to use technology to support health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long term health condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Smoking tobacco</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alcohol consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Are there inequalities in internet access in Wales?

13% of people in Wales have no internet connection at home.

Significantly lower levels amongst

• Older groups
• More deprived
• Lower levels of education
• Economically inactive

Estimated marginal mean and 95% confidence intervals adjusted for age, sex and deprivation.
Multivariate logistic regression p<0.001
Using technology to support health

Amongst Tech users = 77% use technology to support their health

- General health information: 66%
- Health service information: 62%
- Activities: 50%
- Self diagnose: 39%
- Track personal goals: 20%
- Manage a long term condition: 19%
- Health appointment: 17%
- Emotional support: 11%
- Manage medication: 10%
- Manage other supplements: 9%

(Figures weighted to the population distribution of Wales)
Tracking health indicators
Amongst Tech users = 39% weekly track health

(Figures weighted to the population distribution of Wales)
Are there inequalities in using technology to support health?

Empowered “patient”

Low general health
- 60% finding information on general health
- 22% manage long term condition
- 12% manage medications

Emotional support

Low mental wellbeing
- 64% finding information on general health
- 13% finding emotional support online.

Women
Younger
Less deprived

Figures are estimated marginal means adjusted for age, sex and deprivation. Multivariate logistic regression p<0.05
Does using technology make a difference? For the majority, it made no difference.

For the majority, it made no difference.

**Beneficial**
- Find information in a private way: 49%
- Improve my own health: 36%
- Motivation to change: 32%
- Relationships with friends / family: 29%
- Ability to deal with health problems: 27%

**Detrimental**
- Sleep: 5%
- Anxiety about health: 4%
- Self esteem: 3%
- Relationships with friends / family: 2%
- Feeling isolated: 2%
What would motivate people to use technology more to support their health?

- Knowing that the information shared through the internet is safe and secure: 53%
- Available technology at a cheaper price: 42%
- Having a way to check the information found online is reliable: 55%
- Understanding more about how to use the internet and technology to help me improve my health: 34%
- Faster internet connection at home: 32%
- Better mobile phone internet coverage: 32%
“...work with **NHS Wales** to provide people with **digital ways of accessing health and care services** and information, helping empower patients and carers to take greater control of their health and well being”.

- Ensure a digital divide (access, skills, trust) does not reinforce health inequalities.
- Address the evidence gap on effectiveness of technology and health – to empower.
Thank you

alisha.davies@wales.nhs.uk

@alishadavies1

@publichealthwales