The future’s digital
Mental health and technology

Key points
• This briefing is based on a longer report, also published by the Mental Health Network, The future’s digital: mental health and technology.
• The report examines what the digital revolution means for the provision of NHS mental health services and recommends a direction of travel for the future.
• Few providers appear to be fully exploiting digital technology at present, although there is an appetite for change.
• The report sets out case studies from the UK and abroad, as well as looking at the use of mobile apps and social media in mental health.
• It calls on the Department of Health, NHS England and others to work together to develop a national strategy for e-mental health in 2015/16.

Introduction
The use of digital technology to improve health outcomes has the potential to transform the face of the NHS. Electronic communications are increasingly central to the way we live our lives, including how we look after our own health. Forty three per cent of internet users have used the internet to access health information, up from just 18 per cent in 2007.1 There is a considerable gap opening up between changing public behaviour and expectations and the way most NHS services are currently delivered.

This briefing provides an overview of the research conducted for the report, including an assessment of how technology is currently being used in the UK and abroad, plus opportunities for the future. It also looks at some of the challenges that must be addressed at a national level if we are to make progress, and how a national strategy for e-mental health may provide a useful platform for doing so.
The NHS is facing unprecedented challenges. The Mental Health Foundation estimates that by 2030 there will be approximately 2 million more adults in the UK with mental health problems. Investment in mental health services is falling. There is significant unmet need. The London School of Economics and Political Science estimates that 75 per cent of people experiencing depression and anxiety-related problems access no treatment.

Digital technology presents us with new ways to deliver services more efficiently and effectively, and – arguably more importantly – help us transform the culture of our services. Making better use of technology could also help us improve access, convenience, experience and outcomes.

Service users and their families have very different expectations today of both services and professionals. An emphasis on individual recovery, as well as wider societal and technological change, are important factors in understanding these changing expectations. Increasingly, the public will want to use digital technology to engage with services in different ways, and make use of available information and data to understand and manage their conditions better.

The conclusions and recommendations are based on a combination of interviews with key figures in the field, feedback from a workshop involving professionals and service users across a local health economy, plus a survey of providers of mental health services.

**Background**

“Making better use of technology could also help us improve access, convenience, experience and outcomes.”

**Member survey**

We surveyed all 64 MHN member organisations in late 2013 about their current use of digital technology and their plans for the future. Fifteen responses were received, from senior level contacts including chief executives and medical directors. This equates to an overall response rate of 23 per cent. The number of responses were relatively low, therefore we should be wary of extrapolating too much from the data. However, the survey certainly provides some useful insights into the level of digital maturity that currently exists.

**Current use**

Eighty three per cent of respondents to one question said their organisation provided an online directory of their services, and 75 per cent said their website provided general information about mental health conditions. Sixty six per cent said they signposted information online, such as contact information for local carer groups. Fifty per cent said they provided options to access services remotely, for example by telephone. None reported that they enabled online appointment booking.

**Future plans**

Whilst current levels of digital maturity appear low, there appears to be an appetite for making greater use of technology in the future. Seventy three per cent of respondents to another question said they had plans to enable online appointment booking and 82 per cent said they had plans to use online and mobile applications to support service delivery.

Almost all respondents said they had plans to provide remote access to services in the future (for example, clinics using online video calling), although some said this was not on the immediate horizon.

**Challenges for providers**

Respondents were asked to identify what barriers were hindering greater use of digital technology. Responses included “financial constraints” and “investment”, “problems with IT supplier”, “connectivity” in rural areas, and “IT literacy” of staff and service users.
Qualitative interviews and workshop

Thirty semi-structured interviews were conducted in late 2013 with policymakers, professionals, service users, developers and others. Also in late 2013, staff, service users and members of local voluntary sector organisations came together for a half-day workshop facilitated by Transform, hosted at the University of Leeds, and run in conjunction with Leeds and York Partnership NHS Foundation Trust.

Some common themes and key messages were evident from those conversations. The need for change, and making better use of technology in the way we design and deliver services, appears to be widely accepted. Many people said they thought technology provides an opportunity to promote better public mental health and wellbeing, as well as enable service users to take charge of their own recovery. They also thought it could make the collection of relevant data easier, allowing for greater comparison and accurate measurement of outcomes.

There were also common themes around cultural challenges. For example, many people were adamant that we must not allow assumptions about the lack of access for some groups to be used as an excuse to hold back. Others said we need to tackle the concerns of staff and service users – including tackling the ‘binary idea’ that redesigning services is about pitching digital and face-to-face contact against each other.

In terms of practical challenges to address, people said we need to be able to identify good practice and learn about what works, including through working with developers and commercial sector organisations. Creating a speedy, reliable framework for evaluation is also seen as important, in order that we can establish what works in much faster timescales. Another important challenge is the need to develop capacity and capability amongst the mental health workforce to design and deliver services differently.

The current picture

Health apps

It is estimated that approximately 100,000 health apps are available in major app stores.4 There is little in the way of a quality filter, or regulation, applied to the apps in these stores, so making a judgement about quality is difficult.

We reviewed which mental health apps were being promoted (as at December 2013) in the NHS Choices app library (www.apps.nhs.uk) and the My Health Apps library (www.myhealthapps.net) from Patient View (www.patient-view.com).

Eighty seven apps were available, some free and some paid for – a very small number compared with the thousands available through other libraries such as iTunes. Examples of apps included the NHS Choices Healthy Living app, The Mental Elf (a research resource), Mindlogr (a private video logging tool), and Psychology Online (an eCBT tool). Buddy app5 is a high-quality digital tool used to support talking therapy services. It uses text messaging to keep a daily diary of what users are doing and how they are feeling, helping to spot and reinforce positive behaviours.

Social media

Social media is being used in a variety of ways in this space. For example, individuals are using social media to blog about their personal experiences. Notably, social media is being used very effectively for facilitating self support and peer networking. Numerous peer engagement platforms operate with well-established user populations, including PatientsLikeMe, Health Unlocked, Patient Opinion and Care Pages. These sites provide a social platform, allowing users to compare their health information with others, as well as monitor their mood, talk about their symptoms, discuss treatment side effects and share support.

A large mental health community exists on Twitter, including professionals and service users (and, of course, those who count themselves as both). It is notable how that community self-organises,
including through the use of weekly and monthly self-organised ‘tweetchats’ on a variety of topics – for example, the popular #MHNurChat. Unmoderated social media can pose risks. For example, concerns have been raised about ‘pro-ana’ or ‘thinspo’ websites and the risks these can pose to the successful recovery of people with eating disorders.

Big White Wall operates a ‘closed garden’ for its service users, where they can share views and develop user-generated content in a safe and moderated environment. Moderators, known as ‘wallguides’, observe activity and identify early indicators of concerning behaviour to ensure service users are not putting themselves or others at risk. Mind also runs a free, closed social media platform called Elefriends.

**International case studies**
The report highlights a number of international examples of good practice, including eHeadspace, Moodgym and Mood Rhythm from Australia and the work of the Veterans Health Administration and Kaiser Permanente in the USA. In 2011 the Veterans Health Administration introduced a programme of remote mental health support, which targets over 200,000 sessions annually. Analysis of patient data indicates that there were significant business benefits, with reductions in hospitalisation and reductions in average length of stay.7

**UK case studies**
The report looks at the types of applications, tools and products originating from the UK.

The first category of examples can be broadly characterised by the term ‘self support’. These comprise self-service and self-care tools and platforms. These are generally developed for service users and members of the public but are usually not monitored, moderated or integrated with traditional mental health services or professionals. They also include those tools which may be developed by a statutory service, but focus on providing information rather than integrated with any formal care pathway. Some examples of such applications and tools include MOMO (www.mindofmyown.org.uk), MyJourney (www.sabp.nhs.uk/eiip/app) and Moodometer (www.2gether.nhs.uk/moodometer-app).

Secondly, is the category of digitally integrated care. This is where digital tools – such as health assessment, care provision and medication monitoring software – are developed with the intention of being used as part of a formal package of care, or enhancing the workflow of an existing service. In the future we may see more blended packages of care, bringing together face-to-face and online contact as part of an overall service offer. Examples include work by Big White Wall (www.bigwhitewall.com) and Clintouch (www.clintouch.com).

A third area is that of health hubs and ecosystems, where committed collaboration between organisations results in the establishment of some form of structure for support. An example of such an initiative is that of the Leeds Innovation Health Hub (LIHH), which launched in January 2014. This has been set up with the vision to make Leeds first for health and innovation through improving health and social care outcomes, attracting inward investment and encouraging local enterprise in mHealth. The LIHH includes the mHealthHabitat which is developing a systemic approach to digital innovation in supporting service transformation. Another established ecosystem, the Manchester mHealth Ecosystem, was established in 2011. Serving a population of over 3.2 million people, the Ecosystem brings together health and community care providers and commissioners, a leading clinical research network, a world-class research university, city-region government, major international companies and innovative SMEs in a permanent partnership committed to “making mHealth happen”.


Recommendations

Our recommendations build on the information gathered about how e-mental health is currently being used, plus the insights garnered from the survey, interviews and workshop.

The report articulates a clear vision for where we want to go. It highlights a number of actions to be taken forward by the Department of Health, NHS England, Care Quality Commission (CQC), Monitor, Health Education England, NIHR MindTech Healthcare Technology Co-operative, Royal Colleges, health and wellbeing boards, clinical commissioning groups and mental health providers.

National action
The recommendations are set out in full in the report. However, in terms of national action, they all centre on a single proposed action: that is for a national strategy for e-mental health to be developed in 2015/16, and investment made in a subsequent programme of work to support transformation and change. Key statutory partners in the strategy would be the Department of Health, NHS England, Public Health England, CQC, Monitor and others. The strategy should be co-produced with stakeholders, including providers, commissioners, service users and those working in digital technology.

The strategy, and subsequent programme of work, should include:

- a plan for how we will address outstanding questions relating to governance, safety, regulation, integration, payments and information
- how digital will be leveraged as part of mental health promotion and prevention activity
- a roadmap for digital skills development amongst the NHS workforce
- the development of resources to support the work of clinical commissioning groups, health and wellbeing boards and mental health providers
- how NHS England will support the identification and spread of good practice, and make investment available to support the development of local services.

Mental health providers
Digital technology is a game changer for how we think about the design and delivery of health services. Every provider will want to ensure digital is a fully integrated component of their overarching organisational strategy, if they have not already done so. Providers will also want to consider how digital innovations could form part of current and future service redesign projects.

Some of this work will need specialist skills and expertise. That could be led by a dedicated senior programme director for digital – either for the organisation, or shared across a local health economy. Developing a shared organisational vision for digital will necessitate wide staff engagement, particularly with clinicians and service managers. It may prove helpful to harness the insights of those new to the NHS – for example, trainee doctors and graduate management trainees – about what their vision for the future might be.

Any organisational strategy should be co-produced with service users and carers, with the aim of fully understanding their aspirations around the use of digital technology. Engaging with users via non-traditional channels – for example, social media – may provide useful insights which may not emerge through traditional consultation routes. Particular attention may need to be paid to the aspirations of younger service users who may have different ideas about what they want to see.

In terms of organisational strategy, this may need to address the following questions:

- How can digital technology support the delivery of a service that is truly recovery-focused, joined-up and empower greater self care?
- How will our service users in future want to engage with us in terms of how they receive care and support (i.e. the mix between remote and face-to-face contact) and engage with us in other ways (i.e. using apps for monitoring, booking appointments, asking routine questions)?
- What skills do we need within our workforce?
- What technology will we need?
A vision for the future

We believe in the potential for digital technology to transform the way in which people look after their mental health, and transform the way the NHS designs and delivers mental health services. There is considerable appetite amongst mental health services, and the public, to make greater use of technology in this way.

Firstly, we could make more use of digital technology and online resources to improve overall public mental health. Everyone should be able to access reliable information about mental health and wellbeing online, and through such portals be able to access help and advice anonymously in a variety of ways (live chat, email, text and phone).

Secondly, the potential for leveraging digital technology better in the way we design and deliver NHS mental health services is huge. This could help us deliver services in ways which the public increasingly wants, and much more efficiently. Through technology we can support the cultural transformation of our services, empowering individuals to take charge of their own recovery. In terms of the future, with individuals able to choose their provider, delivering services in the ways in which a new generation of service users have become accustomed to will become ever more important.

Clearly this will require different ways of working.

In the future, digital technology presents us with the opportunity to think about how we can integrate services better and move beyond individual service silos – something a number of innovative organisations are already thinking about.

In the short term, practical actions that services could take include:

- enabling service users to have the option of booking appointments online and to receive confirmations and reminders by email and text
- where clinically appropriate, making available options to access treatment and support remotely via phone and video calling
- encouraging and enabling service users and clinicians to make the most of apps and tools to improve outcomes. This includes using smartphone apps to keep track of medications, symptoms, outcomes and to manage overall health as part of an integrated mental health service. We should be empowering members of the public and clinicians, by helping to inform them about what works and what’s safe. Where they choose to, service users should be able to share this data quickly, simply and efficiently with the professionals who work with them, enabling our NHS to benefit from this data and work more efficiently.
Mental Health Network viewpoint

We live in a digital society. The use of technology has the potential to transform the face of the NHS and health services around the world. Compared to many other service sectors, mental health – and the NHS more broadly – is seriously behind the curve.

This briefing shows there is a consensus view that this needs to change. We are lacking a clear sense of future vision and the right skills amongst our workforce. Our existing ways of evaluating new products and services, and ensuring their safety, are too slow to enable services to keep up with the pace of technological change we can see all around us.

The good news is that there are some fantastic examples across the country where passionate and knowledgeable individuals are already making change happen. We need to learn from them, and start adopting those innovations that work. However, there are some common problems it makes sense to tackle at a national level, under the banner of the development of a national strategy for e-mental health.

One might, rightly, question whether a national strategy is the right answer, particularly so in an era of increasingly devolved decision-making. It is clear, after all, that much can be done by local providers and commissioners – and indeed, in some cases, already is. This is of course true. However, throughout our work on this issue, time and time again the same questions have come up: How do we know what works? How do we know what’s safe? What do we need from the future workforce? These are all common barriers it not only makes sense to address together at a national level; they cannot be addressed by any other means. Without providing clarity on the answer to these questions, progress will remain slow.

The potential is massive. Technology can help us deliver services much more efficiently and, increasingly, via channels the public want to use. Through leveraging digital, we can help transform the culture of our services, empower individuals to take charge of their own recovery and stay well.

We hope that this briefing stimulates debate and begins the process of building a consensus amongst professionals, policymakers and service users about the way ahead. If you would like to share your views, please email mentalhealthnetwork@nhsconfed.org or tweet us at @nhsconfed_mhn using the hashtag #mhnfutures.

References

3. Centre for Economic Performance and London School of Economics and Political Science (June 2012) How mental illness loses out in the NHS.
5. More information at: www.buddyapp.co.uk
7. The Veterans Health Administration: Taking Home Telehealth Services to Scale Nationally, Andrew Broderick, The Commonwealth Fund, 2013
8. This could build upon work currently being undertaken with the mHealth Habitat in Leeds, and Leeds University, to develop guidance for clinicians on recommending apps: http://mhealthleeds.co.uk/guidance-for-health-professionals-mobile-apps
Acknowledgements

Thank you to all those who contributed to the development of this briefing, including those who gave their time to be interviewed, take part in our workshop or respond to the member survey.

Special thanks to Charlie Young, Justin Irwin and Andy Wilkins of Transform for co-authoring the report this briefing is based on.

In addition, thank you to the mental health leads of each of the NHS strategic health authorities, particularly Katrina Lake, whose early support made this project possible. In addition, thank you to Dr Geraldine Strathdee, National Clinical Director of Mental Health at NHS England for her support of this project.

Finally, a special thank you to members of the advisory group to this project, for their advice, expertise and guidance:

Sarah Amani, Chief Clinical Information Officer, Surrey and Borders Partnership NHS Foundation Trust
Victoria Betton, mHealth Programme Director – mental health & long term conditions
Leeds & York Partnership NHS Foundation Trust & Leeds Community Healthcare NHS Trust
Jeremy Clarke, Chair, New Savoy Partnership
Nicola Gill, Mental Health Data Development Lead, NHS Choices
Professor Chris Hollis, Director, NIHR MindTech Health Technology Co-operative, University of Nottingham and Institute of Mental Health
Jen Hyatt, Chief Executive, Big White Wall
Dr Matthew Patrick, Chief Executive, South London and Maudsley NHS Foundation Trust
Dr Emma Rowley, Involvement and Implementation theme lead, NIHR MindTech Health Technology Co-operative, University of Nottingham and Institute of Mental Health

Mental Health Network

The Mental Health Network is the voice of mental health and learning disability service providers for the NHS in England. We represent providers from across the statutory, independent and voluntary sectors.

We work with Government, NHS bodies, parliamentarians, opinion formers and the media to promote the views and interests of our members and to influence policy on their behalf.

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