Rapid Review on Coronavirus/COVID-19: Resources related to Mental Health and Addiction Technology use across IIMHL countries

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Janet Peters, Steve Appleton, Kathy Langlois, Fran Silvestri

The COVID-19 crisis and global pandemic may be the defining moment for digital mental health, but what that definition will be remains unknown. Ensuring the right use of telehealth and app tools today in this crisis and investment in people and training to support them tomorrow during the potential mental health fallout of the current crisis as well as readiness for tomorrow can cement the future of digital mental health as simply mental health. [1]

Introduction

This report is a ***very rapid*** review of issues, resources and actions related to technology use in the COVID-19 mental health and addictions context. There is already a large and emerging body of publications in this area – we have selected a few of those that appear to be of particular relevance.

The COVID-19 global pandemic has highlighted the role of telehealth and digital tools, like apps, to offer care in times of need. Many clinicians and people using services are now realizing the full potential of these digital tools. In part this move has been driven by circumstance as, for the first time, the need to utilize them to connect in a time when in-person and face-to-face visits are impossible.

The only established contraindications to telehealth are people not wishing to partake, people who cannot access technology (e.g. due to poverty and inequality) and speech, sight, hearing and language barriers.

Key takeaways

- In this time of uncertainty what people need is simple: Access to reliable information and the ability to get help if they need it
- While COVID-19 has been devastating, it has had one major positive impact: the fast-growing availability and uptake of telehealth services
- All countries have produced new approaches to mental health and addiction services via technologies in the COVID-19 environment. Most however, particularly focus solely on mental health
- More use of technology in the addiction context might be a useful area of focus?

[1] Torous et al https://mental.jmir.org/2020/3/e18848/

- Equity is a key issue for all countries, particularly those with Indigenous communities
- We must also be aware of the disparities that impact people with low income, those receiving public benefits, and cultural and linguistically diverse communities that may not have access to even basic technology, including digital mobile technology
- Many countries see COVID-19 as a vehicle to improve services in the future.
- Use of new technologies (and improvement of existing technologies) requires policy development, guidelines, training and evaluation
- Extreme circumstances – such as a pandemic – can also give regulatory agencies some leeway to push forward therapeutic technologies faster than usual possibly leading to use of less than evidence-based approaches
- We cannot fully "app" our way through mental health and addiction services. Person to person contact will always be invaluable
- There is an "Infodemic" of misinformation that many agencies around the world are trying to manage
- As with other IIMHL and IIDL reports, some information on webpages is not dated, and in this ever moving COVID-19 world it makes it hard to clearly establish the Government timelines for policy approaches.

International Organisations

The Health System Response Monitor (HSRM)

This is a joint undertaking of the WHO Regional Office for Europe, the European Commission, and the European Observatory on Health Systems and Policies.

https://www.covid19healthsystem.org/mainpage.aspx

How are countries using digital tools

https://analysis.covid19healthsystem.org/index.php/2020/04/28/how-are-countries-using-digital-health-tools-in-responding-to-covid-19/

World Health Organisation (WHO)

ITU-WHO Joint Statement: Unleashing information technology to defeat COVID-19
20th April 2020

The World Health Organization, the International Telecommunication Union (ITU) with support from UNICEF are set to work with telecommunication companies to text people directly on their mobile phones with vital health messaging to help protect them from COVID-19. These text messages will reach billions of people that aren't able to connect to the internet for information.

Now more than ever, technology must ensure that everyone can access the information they need. The collaboration will start in the Asia Pacific region and then roll out globally. The goal is to reach everyone with vital health messages, whatever

their connectivity level. An estimated 3.6 billion people remain offline, with most people who are unconnected living in low-income countries, where an average of just two out of every ten people are online.

https://www.who.int/news-room/detail/20-04-2020-itu-who-joint-statement-unleashing-information-technology-to-defeat-covid-19

Misinformation

A key issue has been how to respond to what WHO has called an 'infodemic' of misinformation concerning COVID-19. WHO has established a chatbot on Facebook to help address misinformation, and some countries have active efforts to counter misinformation. In contrast to their approach on other health issues, social media platforms have also begun to actively address misinformation relating to the pandemic, though this remains an ongoing concern.

https://analysis.covid19healthsystem.org/index.php/2020/04/28/how-are-countries-using-digital-health-tools-in-responding-to-covid-19/

Chatbot on Facebook messenger

https://www.who.int/news-room/feature-stories/detail/who-launches-a-chatbot-powered-facebook-messenger-to-combat-covid-19-misinformation

Video: important tips on how you can distinguish fact from falsehood

https://twitter.com/i/status/1271351530898157569

United Nations

Digital technologies and evolving business models and work practices are helping our economies and societies avoid a complete standstill. Now more than ever, the world is going "Digital". But the crisis has also exposed and runs the risks of exacerbating the vulnerabilities and inequalities in society - not every individual or business is equipped with the skills or the means to use digital tools. So as use of digital grows, so does the duty to leave no one behind.

As the world towards the next phase of the crisis, there is a unique chance for governments to work towards a digitally-enabled recovery that strengthens the inclusiveness and resilience of our economies and puts people's well-being at the core. The OECD's Going Digital project sets out a comprehensive policy framework for the digital economy. It has four key elements:

First, improving connectivity. Since the start of the crisis, the demand for broadband communication services has soared, with some operators experiencing as much as a 60% increase in Internet traffic. Now is the time to overcome the digital divide, invest in infrastructure and strengthen broadband networks.

Second, data access and sharing, both within and across borders. Data flows, data pooling and data interoperability are not only essential in dealing with the health

emergency, they will also be at the heart of tomorrow's recovery. This requires the recognition and addressing of the profound issues of data protection and privacy.

Third, digital security. As malicious actors seek to take advantage of the crisis, digital security threats have increased. For example, coronavirus-related scams and phishing campaigns are on the rise.

Fourth, strengthening capabilities of firms and workers. In 2018, small firms used significantly less e-commerce on average (22%) than large firms (37%). Our analysis also shows that only 29% of 16-65 year olds in G20 countries are proficient in using ICTs at work. This can only work if governments and agencies accompany firms, in particular SMEs, and workers in this transition, helping them improve their skills, management and capabilities. This cannot be a transition that only works for a few leading firms or the most digitally enabled workers.

https://www.oecd.org/about/secretary-general/virtual-2020-g20-digital-ministers-summit-on-covid19-april-2020.htm

Policy Brief: COVID-19 and the Need for Action on Mental Health

May 13 2020

"…investing in mental health interventions that can be delivered remotely, for example quality-assured tele-counselling for frontline health-care workers and people at home with depression and anxiety;…"

https://unsdg.un.org/sites/default/files/2020-05/UN-Policy-Brief-COVID-19-and-mental-health.pdf

International Telecommunication Union: A division of UN

ITU is the United Nations specialized agency for information and communication technologies – ICTs.

The unprecedented COVID-19 crisis has accelerated the digitalization of many businesses and services, including teleworking and video conferencing systems in and out of the workplace, access to healthcare, education and essential goods and services. The resilience of networks and people has been extraordinary. ITU works with its membership and the broader ICT and development community to connect all.

https://www.itu.int/en/Pages/covid-19.aspx

World Economic Forum

Among the recommendations are:

"Tapping into the potential of telehealth, will be extremely important for frontline healthcare workers, who will need continued psychosocial support. It is important to recognize that the national gestures of gratitude act as positive reinforcement, but more long-lasting measures need to be put in place for counselling, expression of

grief, and unpacking the strain of the past months. Telehealth can assist the elderly who are currently alone".

https://www.weforum.org/agenda/2020/06/a-mental-health-crisis-is-brewing-heres-how-we-should-prepare/

High anxiety calls for innovation in digital mental health

Are you feeling depressed or anxious? There's an app for that. Globally, there are more than 400 million annual downloads of mobile health apps, which suggests that consumers are eagerly seeking technology to manage their health.

- Counselling services have become available through apps in response to COVID-19.
- Studies have revealed a lack of scientific rigour in digital mental health.
- Research aims to provide real data on the effectiveness of mental health apps.

https://www.weforum.org/agenda/2020/04/high-anxiety-calls-for-innovation-in-digital-mental-health-6b7b4e7044

e-mental health innovation and transnational implementation platform North West Europe (eMEN)

Implementing innovative and high-quality e-mental health plays an important role in tackling this societal challenge and contributes to the development of efficient health systems. However, integration of e-mental health technology into mental health care systems is challenging and requires a multidisciplinary approach and cross-border cooperation. There are also large regional differences with regard to the use of professional e-mental health products. At the start of the eMEN project in 2016, the average use across the Netherlands, France, Germany, UK, Belgium and Ireland was 8%, which is low compared to other healthcare sectors; with the lowest use in FR (less than 1%) and the highest in the Netherlands (15%). Unmet needs were also high, with an EU average of 6.8%.

At the end of the project, the average use of e-mental health products will have increased by 7%, to 15%.

https://www.nweurope.eu/projects/project-search/e-mental-health-innovation-and-transnational-implementation-platform-north-west-europe-emen/

European Digital Alliance

Digital solutions in times of COVID-19
In a new position paper, DIGITAL SME outlines six key areas for a successful COVID-19 recovery: liquidity support, digital skills, investment, cybersecurity & standards, digital sovereignty, and taxation.

https://www.digitalsme.eu/

IASC Reference Group on Mental Health and Psychosocial Support in Emergency Settings

Addressing mental health and psychosocial aspects of Covid-19 outbreak, Feb 2020

"Telephone hotlines might serve as an effective tool to support people in the community who feel worried or distressed. It is important to ensure that hotline staff/volunteers are trained and supervised in MHPSS (e.g. Psychological First Aid) and have current information about the COVID-19 outbreak to avoid undue harm to callers. Example: WeChat, WhatsApp, social media and other forms of technology can be used to set up support groups/maintain social support, especially for those in isolation".

https://reliefweb.int/report/world/interim-briefing-note-addressing-mental-health-and-psychosocial-aspects-covid-19

The Lancet

Global Mental Health and COVID-19
June 2 2020

One strategy becoming increasingly used is the use of digital health technology to strengthen health systems.

https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30235-2/fulltext

Addressing the public mental health challenge of COVID-19
June 7 2020

"Digital technology can deliver public mental health interventions, support the mental health of carers and health professionals, reduce social isolation, deliver public mental health training and facilitate contact tracing. However, risks of excessive screen time need to be mitigated, while also considering the needs of those without such technology".

https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30240-6/fulltext

The International Fact-Checking Network

This agency aims to bring together fact-checking bodies worldwide. The organisation has created a database of COVID-19-related fact checks, which pools together debunked misinformation published across 70 countries. The WHO has added a 'myth busters' section to its online resources about the virus, and UNESCO is promoting the use of hashtags such as #thinkbeforeyouclick.

https://post.parliament.uk/analysis/covid-19-misinformation/

IIMHL Countries

Australia

Australian Government: Department for Health 15 May 2020

COVID-19: $48.1 Million for National Mental Health and Wellbeing Pandemic Response Plan

The Australian Government is continuing to take action to help Australians whose mental health and wellbeing is being affected by the COVID-19 pandemic by providing an additional $48.1 million to support the Mental Health and Wellbeing Pandemic Response Plan presented to the National Cabinet this morning.

This investment builds on approximately $500 million for mental health and suicide prevention announced by the Government since 30th January, including $64 million for suicide prevention, $74 million for preventative mental health services, and a significant proportion of the $669 million telehealth package to support MBS subsidised treatments provided by GPs, psychologists, psychiatrists and other mental health professionals.

The Government has recognised that many Australians are experiencing fear, anxiety, loneliness, financial and family stress as a result of the COVID-19 pandemic and the measures needed to contain it.

Supporting mental health and suicide prevention remains one of the Government's highest priorities.

The package supports the three immediate priorities of the Plan:

1. Data and modelling
2. Outreach
3. Connectivity

https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/covid-19-481-million-for-national-mental-health-and-wellbeing-pandemic-response-plan

Australia's National Digital Health Strategy

"Recognising that for many **Aboriginal and Torres Strait Islander** people, language or lack of transport may be an additional barrier to accessing health services, accelerated take up of My Health Record will achieve registration with vulnerable and hard to reach groups that may not otherwise have been engaged in the My Health Record system under opt-in arrangements. The telehealth test bed will focus on Aboriginal and Torres Strait Islander communities, with the aim of providing timely access to healthcare services to ensure early diagnosis and early interventions.

"We wanted to establish programs and support infrastructure that strengthens Indigenous participation, practice and entrepreneurship in the digital economy."

Kirstie Parker, CEO National Centre of Indigenous Excellence

Actions to address digital literacy, and collaboratively developing inclusive design principles and guidelines for digital health services and content will provide more Indigenous Australians greater opportunity to access technology and use it effectively".

Mental Health

"E-mental health offers one of the greatest invest-to-save opportunities for government and the community in mental health. E-mental health is clinically effective and huge cost savings can be gained by integrating it into a fully functional mental health system of stepped care."

National Mental Health Commission submission

"Online mental health services – either as an alternative, or as an adjunct, to face-to-face mental healthcare – have in recent years become popular and effective services for the treatment of disorders such as anxiety and depression. The Australian Government's Fifth National Mental Health Plan, which is currently under development, recognises the maturation of data sharing and information and communications technology platforms such as My Health Record, and the potential that these digital services may have over the life of the plan to further support tailored individual care for people with severe and complex mental illness.

The National Digital Health Strategy will contribute to maximising opportunities to prevent and reduce the impact of mental health issues and mental illness by prioritising secure messaging, which will support general practitioner and psychologist interactions. Increasing access to mobile health apps and online content will support healthcare consumers with tools to help manage their own health, and also give confidence to healthcare practitioners that they are recommending safe and evidence-based digital tools to their patients".

https://conversation.digitalhealth.gov.au/sites/default/files/adha-strategy-doc-2ndaug_0_1.pdf

National Indigenous Australians Agency

Coronavirus (COVID-19) support measures for Indigenous Australians

Aboriginal and Torres Strait Islander peoples and communities are a priority in the Federal Government's COVID-19 Emergency Response Plan. At the Federal level, the Department of Health is leading the Commonwealth's response on COVID-19, with the NIAA supporting this effort to reduce the impacts on Aboriginal and Torres Strait Islander people.

The Minister for Indigenous Australians, the Hon Ken Wyatt AM MP has announced a number of targeted measures to support Aboriginal and Torres Strait Islander people. These measures include support to protect Indigenous communities, limits to

the movement of people into designated areas, adjustments to the Community Development Programme and other activities funded under the Indigenous Advancement Strategy (IAS).

https://www.niaa.gov.au/covid-19

Mental health

Additional services will be provided to support the mental health and wellbeing of all Australians:

The Government's digital mental health portal, Head to Health will provide information and guidance during this time, with information on how to support children and loved ones, and how to access further mental health services and care. Beyond Blue will deliver a dedicated coronavirus wellbeing support line to help people experiencing concern due to a coronavirus diagnosis, or experiencing stress or anxiety due to employment changes, business closure, financial difficulties, family pressures or other challenges.

Mental health support providers who have experienced an unprecedented surge in call volumes will also get funding to increasing their capacity, including $5 million for Lifeline and $2 million for Kids Helpline.

https://www.niaa.gov.au/covid-19/information-individuals

Head to Health

Wherever you are on your mental health journey, Head to Health – the Government's digital mental health gateway – can help you find the information and services that best meet your needs.

Head to Health can point you to information, advice, and free and low-cost phone and online mental health services and resources to:
https://headtohealth.gov.au/

Australian Government Department of Health

This is a graphic updated daily.

https://www.health.gov.au/resources/publications/coronavirus-covid-19-at-a-glance-6-june-2020

The Covid-19 Safe app

The COVIDSafe app speeds up contacting people exposed to coronavirus (COVID-19). This helps us support and protect you, your friends and family.

https://www.health.gov.au/resources/apps-and-tools/covidsafe-app

Australian Government: National Mental Health Commission

#InThisTogether: Supporting our mental health during Coronavirus (COVID-19)

https://www.mentalhealthcommission.gov.au/InThisTogether
https://www.mentalhealthcommission.gov.au/news/2020/march/inthistogether-covid19

E-prescribing

https://www.health.gov.au/sites/default/files/documents/2020/03/covid-19-national-health-plan-primary-care-fast-track-electronic-prescribing_0.pdf

The Government is providing a package of measures to support the mental health and wellbeing of Australians as we face the challenges of the Coronavirus pandemic.

https://www.health.gov.au/sites/default/files/documents/2020/03/covid-19-national-health-plan-supporting-the-mental-health-of-australians-through-the-coronavirus-pandemic.pdf

Australian Commission on Quality & Safety in Healthcare

Consultation instructions: National Safety and Quality Digital Mental Health (NSQDMH) Standards

The primary aim of the NSQDMH Standards is to improve the quality of digital mental health service provision and to protect service users from harm. The Commission is seeking feedback on the draft standards from consumers and carers, clinicians, service providers, developers, and any other interested stakeholders. Feedback date 8 May 2020

https://www.safetyandquality.gov.au/sites/default/files/2020-02/national_safety_and_quality_digital_mental_health_standards_-_consultation_draft_-_feb_2020.pdf

Telemedicine & E-Health

The Role of Telehealth in Reducing the Mental Health Burden from COVID-19
16 April 2020

Examples of and evidence to support the effectiveness of telemental health are fairly diverse, especially in the context of depression, anxiety, and PTSD.

Videoconferencing, online forums, smartphone apps, text-messaging, and e-mails have been shown to be useful communication methods for the delivery of mental health services. This article has a good diagram of “Examples of Community Online Mental Health Services Available in Australia”.

https://www.liebertpub.com/doi/10.1089/tmj.2020.0068

Black Dog Institute

The essential 10 for health professionals

https://www.blackdoginstitute.org.au/ten/

Beyond Blue

“I need support now”

https://coronavirus.beyondblue.org.au/i-need-support-now.html

Medical Press Ian Hickie 6 May 2020

Coronavirus has boosted telehealth care in mental health, so let's keep it up

Australians are fortunate to have already benefited from many innovations in digital mental health care, such as moodgym, eHeadspace and Project Synergy, all offering online support to people in need.

This has been led by partnerships between major universities, non-government organizations and industry. ReachOut was the world's first online service when it launched in Australia in 1996 to reduce youth suicide.

https://medicalxpress.com/news/2020-05-coronavirus-boosted-telehealth-mental-health.html

Canada

Government of Canada

Wellness Together Canada video of launch by Minister of Health

https://globalnews.ca/video/rd/3bf87aac-7f3e-11ea-883d-0242ac110002/?jwsource=cl

Website

We recognize the significant strain that COVID-19 has placed on individuals and families across the country. Many people are concerned about their physical and mental well-being. Canadians are being challenged in a number of ways because of isolation, financial and employment uncertainty and disruptions to daily life. Wellness Together Canada provides tools and resources to help Canadians get back on track. These include modules for addressing low mood, worry, substance use, social isolation and relationship issues.

- Wellness Together Canada offers the following at no cost to Canadians:
- Wellness self-assessment and tracking.
- Self-guided courses, apps, and other resources.

- Group coaching and community of support.
- Counselling by text or phone.

https://ca.portal.gs/

The Conversation

"E-mental health is an area of research and intervention that emerged in the early 2000s. Telepsychotherapy is the best known form, but this field is vast and also includes access to medical information, co-ordination of care pathways, prevention and follow-up applications, self-care or mutual aid online. In short, everything that can be done with digital technologies to provide mental health care and information can be linked to e-mental health.

This does not mean replacing psychiatrists and psychologists with artificial intelligence systems, or abandoning face-to-face meetings for virtual consultations. Rather, the challenge is to harness the potential of digital technologies to improve access to care or effectiveness of treatment, particularly where conventional approaches are poorly accessible, failing, saturated or absent".

https://theconversation.com/coronavirus-new-technologies-can-help-maintain-mental-health-in-times-of-crisis-136576

Benefits by Design

Virtual Healthcare: Telehealth Services and Resources to Use During COVID-19

Telemedicine (also referred to as telehealth) refers to technology that allows the remote delivery of healthcare services. If the word telemedicine evoked images of doctors doing patient assessments by webcam – you're not wrong! Today, there are many different telehealth services. For instance, consider the existence of virtual physiotherapy or a digital health coach. Examples are:

- Tiahealth
- EQ care
- Appletree virtual care
- Virtual Med
- Maple Telemedicine
- Beacon Digital Therapy

https://www.bbd.ca/blog/telehealth-services-canada/

Journal of Internet Medical Research

Digital Health Equity and COVID-19: The Innovation Curve Cannot Reinforce the Social Gradient of Health 2 June 2020

“Digital health innovations have been rapidly implemented and scaled to provide solutions to health delivery challenges posed by the coronavirus disease (COVID-19) pandemic. This has provided people with ongoing access to vital health services while minimizing their potential exposure to infection and allowing them to maintain social distancing. However, these solutions may have unintended consequences for health equity.

Poverty, lack of access to digital health, poor engagement with digital health for some communities, and barriers to digital health literacy are some factors that can contribute to poor health outcomes. We present the Digital Health Equity Framework, which can be used to consider health equity factors. Along with person-centered care, digital health equity should be incorporated into health provider training and should be championed at the individual, institutional, and social levels. Important future directions will be to develop measurement-based approaches to digital health equity and to use these findings to further validate and refine this model.”

Figure 1: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7268667/figure/figure1/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7268667/

CADTH, Canada

Telemedicine: The use of telecommunications technologies (e.g., telephone, smart phone, or video conferencing) for delivering clinical care such as medical treatment, monitoring, and diagnostic services.

Telehealth: The use of telecommunications technologies and electronic technologies (e.g., the internet and streaming media) for delivering a broader range of both clinical and non-clinical services, including consultations, health-related education, public health information, and social or peer support.

- Artificial Intelligence
- e-Consultations
- Remote Monitoring
- Telehealth
- Telemedicine
- Wearables and Apps
- Tools and Resources

https://cadth.ca/evidence-bundles/evidence-digital-health

England

UK Parliament POST

https://post.parliament.uk/analysis/mental-health-and-well-being-during-the-covid-19-outbreak/

Misinformation “Infodemic”

https://post.parliament.uk/analysis/covid-19-misinformation/

NHS

NHS Digital

Part of the NHS heath and care as part of the Government response to COVID-19 An example of a recent publication:

Potential Coronavirus (COVID-19) symptoms reported through NHS Pathways and 111 online

“Data published on potential COVID-19 symptoms reported through NHS Pathways and 111 online Dashboard shows the total number of NHS Pathways triages through 111 and 999, and online assessments in 111 online which have received a potential COVID-19 final disposition. This data is based on potential COVID-19 symptoms reported by members of the public to NHS Pathways through NHS 111 or 999 and 111 online, and is not based on the outcomes of tests for coronavirus. This is not a count of people”.

Please note that 'the NHS App' and the new 'NHS Covid 19 App' are not the same.

The NHS App is a simple and secure way to access a range of NHS services on a smartphone or tablet. www.nhs.uk/app

The NHS COVID-19 app, developed by NHSX, is now being trialled on the Isle of Wight. www.covid19.nhs.uk

https://digital.nhs.uk/coronavirus

NHS Several resources are available here; for example: self-assessment and audio-guides. https://www.nhs.uk/conditions/stress-anxiety-depression/

Free therapy or counselling

https://www.nhs.uk/conditions/stress-anxiety-depression/free-therapy-or-counselling/

NHS takes action against coronavirus fake news online
The NHS has today unveiled a package of measures in the battle against coronavirus fake news – working with Google, Twitter, Instagram and Facebook – to help the public get easy access to accurate NHS information and avoid myths and misinformation.

https://www.england.nhs.uk/2020/03/nhs-takes-action-against-coronavirus-fake-news-online/

British Medical Journal

Covid-19: a digital epidemic

The effects of the digital and social media response to the novel coronavirus are thought provoking. The final human cost of the Covid-19 pandemic will be far greater than can be captured by daily updates of the number infected or by figures of economic decline. With time, the extreme psychological impact of the epidemic, necessary public health measures and the unprecedented social media commentary will be realised.

https://www.bmj.com/content/368/bmj.m764/rr

Mental Health Foundation

In the UK, 38 million adults access the internet every day. That's 76% of the adult population. On average, internet users aged 16 and over spends more than 20 hours online each week and more than 70% have a social networking profile. With this growth of the internet, online spaces and smartphone apps, healthcare services are beginning to use these developing technologies to help monitor health and prevent and treat any problems. Digital health (or e-health as it's sometimes known) is a wide and varying concept that includes the use of technology for digital record keeping, online booking systems, online repeat prescriptions and some more innovative uses of technology for direct treatment.

While applicable to physical health, there have been strides towards the use of digital health for mental health as a way to use IT to support and improve mental health, including the use of online resources, social media and smartphone applications. Digital mental health has been associated with benefits such as improved access to services, including online self-help and reduced barriers such as stigma.

https://www.mentalhealth.org.uk/a-to-z/d/digital-mental-health

Tips for home and remote working IT and technology

For many of us IT and technology will be a lifeline during a period when our working patterns will change. It can be quite an adjustment though to do a lot online, and we aren't all tech geniuses…

https://www.mentalhealth.org.uk/publications/looking-after-your-mental-health-during-coronavirus-outbreak/while-working

Kings Health Partners

Working remotely: e-IMPARTS: Patients will be able to complete their e-IMPARTS up to 24 hours before their outpatient or virtual appointment.

Patients are traditionally asked to complete an IMPARTS screening in an outpatient clinic, usually in the waiting room before their consultation. The IMPARTS screening

tool is a web based informatics platform collecting patient reported outcomes on a variety of themes, such as emotional wellbeing, quality of life, pain, and disability, as well as condition-specific symptoms. The information is uploaded to an electronic health record in real time, allowing the patient's healthcare professional to review and discuss the information during the patient's consultation. In the coming weeks, we're putting the "e" in "e-IMPARTS" by making the screening available to patients outside clinics, and in their homes.

https://www.kingshealthpartners.org/our-work/mind-and-body/our-projects/imparts

The Centre for Countering Digital Hate (CCDH, a UK based charity)

This organisation recently produced guidance called 'Don't Spread The Virus'. It encourages social media users not to share or comment on false information they see online, even if they want to point out that it is wrong, to prevent the content from appearing in other users' social media feeds.

Instead, users are encouraged to block people who are sharing misinformation and report the content to the platform. The guidance also suggests that users can help to 'drown out' misinformation by posting and sharing information and advice from official sources.

https://post.parliament.uk/analysis/covid-19-misinformation/

Care Quality Commission

Innovation and inspiration: examples of how providers are responding to coronavirus (COVID-19)

This list includes examples of remote healthcare, use of technology and using social media to communicate information.

https://www.cqc.org.uk/publications/innovation-inspiration-examples-how-providers-are-responding-coronavirus-covid-19#hide16

Social Care Institute for Excellence

COVID-19 resource and best practice hub for social care

How to use:

- Select a subject topic below. You will be taken to a list of SCIE and sector resources about this topic.
- Using the left-hand side filter, select a specific audience, subject term, organisation name, content or format type to narrow down your search

https://www.scie.org.uk/care-providers/coronavirus-covid-19/hub?utm_campaign=11604700_SCIELine%2011%20June&utm_medium=email&utm_source=SOCIAL%20CARE%20INSTITUTE%20FOR%20EXCELLENCE%20&u

tm_sfid=0030f00002rfIdCAAU&utm_role=Advisor&dm_i=4O5,6WQ8S,RE3B2J,RRFPQ,1

Closing the digital gap: Shaping the future of UK healthcare Deloittes
June 2019

Over the past decade, all four UK countries have explored, with varying degrees of success, the use of digital technologies to modernise services. In England, however, the cancellation of the National Programme for Information Technology (NPfIT) in 2011 has led to a largely localised approach to digitalisation, but Scotland, Wales and Northern Ireland have adopted a more national co-ordinated approach. While all four countries have experienced challenges in implementing digital solutions, England has seen wide variability in the extent, quality and scope of the solutions that have been adopted and the outcomes achieved.

https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/life-sciences-health-care/deloitte-uk-life-sciences-health-care-closing-the-digital-gap.pdf

Ireland

eMental Health in Third Level Education settings A Briefing Document Prepared by the eMEN team at Mental Health Reform
June 2019

Exhibit 8. Some existing examples of eMental Health in third level settings

- Online CBT programmes (e.g. Silvercloud)
- Online social anxiety programme (Participate)
- Student-led initiatives (e.g. USI's +Connections app)
- Telemental health (e.g. Niteline phone-based support; video- and phone-based counselling) − Sign-posting to useful online programmes and apps available externally.

Future work:

Exhibit 9. Some aspects of eMental Health for further attention

- Online mental health programmes promoting positive mental health and building resilience − Exploiting the potential of social media for mental health promotion and peer support
- Online therapy & telemental health, both for common mental health conditions and for more severe and enduring conditions
- Leveraging third level eMental Health innovation capacity to develop new approaches
- Basic/applied research to further understand eMental Health benefits, risks and effectiveness
- eMental Health in curricula for mental health practitioners - initial and continuing education

https://www.mentalhealthreform.ie/wp-content/uploads/2019/09/MHR_EMEN.pdf

The role of the Third Sector in eMental Health innovation and service provision in Ireland

April 2020

A recent Irish review of the eMental health field has suggested a broad definition of eMental health - 'technology-supported provision of mental health services and supports'. Relevant technologies include telecommunications (phone, video, online); online and computer-based programmes; mobile apps; virtual reality; gaming; social media; data analytics; and many more. This state-of-the-art report organises and discusses the field around a number of important application domains (Exhibit 1).

These have relevance across the different components of the overall mental healthcare and support ecosystem, including formal mental health services, third sector and peer support organisations, and self-help activity by people with mental health issues.

Exhibit 1

- TeleMental health (enabling consultations at a distance)
- eTherapy (online therapeutic programmes)
- Ongoing support for enduring mental health difficulty (e.g. for medication management)
- Other innovative additions to the treatment toolkit (e.g. virtual reality, serious gaming)
- Crisis support and suicide prevention (e.g. crisis text services)
- Information and psycho-education (online self-help)
- Peer support (online groups and other applications of social media)

https://www.mentalhealthreform.ie/wp-content/uploads/2020/04/eMentalHealth_Third-Sector_final.pdf

Guidance on Telemental Health for mental health services and practitioners: Rapid briefing

April 2020

The COVID-19 crisis has direct mental health implications in a number of ways, and also creates some major organisational, operational and logistical challenges for the various players in the Irish ecosystem of providers of mental health services and supports.

COVID19-connected mental health issues include:

- Mental health issues for those affected medically by COVID-19
- Mental health issues arising for people through impacts of
- COVID-19 on social and economic life
- Emergence of new mental health difficulties or exacerbation of existing ones.

COVID-19 related challenges for mental health service and support systems include:

- Logistical challenges to deliver ongoing services because of social distancing and 'lock-down'
- Rapidly developing appropriate supports for the new COVID-19 connected mental health issues.

This rapid briefing focuses mainly on this aspect, especially the logistical challenges facing providers of mental health services and supports just now.

https://www.mentalhealthreform.ie/wp-content/uploads/2020/04/eMEN-rapid-briefing-paper_-COVID-19_final-12.pdf

National Health Plan 2019

"The Plan sets out the implementation of the recommendations of a refresh of A Vision for Change which is set to commence in 2020, implementing agreed eMental Health digital responses…"

https://www.hse.ie/eng/services/publications/national-service-plan-2020.pdf

EMental Health: State of the art & opportunities for Ireland

(Updated 27 May 2009)

eMental health application domains covered in the report

- Telemental health
- eTherapy (technology-supported therapy at scale)
- Ongoing support for enduring mental health difficulty
- Other innovative additions to the treatment toolkit
- Crisis support and suicide prevention
- Information and psycho-education (self-help)
- Peer support.

Many opportunities...

The report considers eMental health applications that may be helpful for the large numbers of people with common mental health conditions, as well as applications relevant for people with more severe and enduring conditions. Current evidence and practice suggests that eMental health offers considerable potential, and some fields of application are already quite mature. eMental health applications can help to empower people with mental health conditions to engage more effectively in their recovery through self-help, access to peer support, and new ways to participate in jointly managing treatment and recovery pathways with clinicians.

https://www.gov.ie/pdf/?file=https://assets.gov.ie/10604/86323b13d11048dd88790fb9059941d2.pdf#page=1

Government of Ireland

As Ireland continues to invest in the emerging field of eMental health, eolas magazine assesses the findings of the '**eMental Health: State-of-the-art & Opportunities for Ireland'** report.
December 2018

"A report recently published following joint funding from Mental Health Reform and the Health Service Executive (HSE) offers itself as one of the country's first resources on eMental health applications currently on offer to service users. The report employs a broad definition of eMental health, which describes the concept as 'technology-supported provision of mental health services and supports' and includes a variety of applications including telecommunications; online and computer-based programmes, mobile apps, virtual and augmented reality, gaming, social media and data analytics.

Indeed, the applications for eMental health digital technology are broad, as outlined in the report: more enhanced provisions are envisaged in mobile technology, with instant messaging, live chat and telephone support highlighted as essential elements of the service. For those with the greatest need, much emphasis has been placed upon the provision of online counselling and tele-psychiatry. However, the report issues an imperative warning: "eMental Health is not a panacea". The technology, whilst in its early stages, offers no replacement to talking and therapeutic treatments – a key limitation highlighted in the report.

The report recommends that traditional service models evolve and adapt to the "major societal trends associated with the pervasiveness of the internet, smart-phones and other technologies". A core element of this includes telepsychiatry applications which allow for improved access to specialists in primary care settings and emergency departments, as well as telepsychology and counselling arrangements which would enable remote client-practitioner therapy sessions – an offering referred to in the report as "eTherapy".

The employment of mobile and gaming applications has been emphasised in the report as a key factor in how the Irish State may adapt the direct provision of mental health services to an increasingly youthful and technologically-aware demographic."
https://www.eolasmagazine.ie/digital-interventions-emental-health-in-ireland/

New Zealand

New COVID-19 website

https://uniteforrecovery.govt.nz/

Ministry of Health

Digital health is the use of digital technologies and accessible data, and the associated cultural change it induces, to help New Zealanders manage their health and wellbeing and transform the nature of health care delivery.

20 May 2020: NZ COVID Tracer app launched - The official Ministry of Health contact tracing app helps you keep a digital diary of the places you've been.

- Read more about the NZ COVID Tracer app
- View the COVID-19 Contact Tracing Data Standard

https://www.health.govt.nz/our-work/digital-health

More information on the Tracer app

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-novel-coronavirus-resources-and-tools/nz-covid-tracer-app

COVID-19 Health and Wellbeing Survey

The COVID-19 Health and Wellbeing Survey provides information about how New Zealanders have been impacted by COVID-19.

The survey started on 30 March 2020, 4 days after New Zealand moved to COVID-19 Alert Level 4.

Every day nearly 300 people, aged 15 years and above, complete a 10−15 minute phone interview. Each day a different set of people are interviewed.

A team from CBG Health Research Limited are interviewing people using Computer Assisted Telephone Interviewing (CATI).

Key findings from the 10th week of surveying (1-7 June 2020) include:

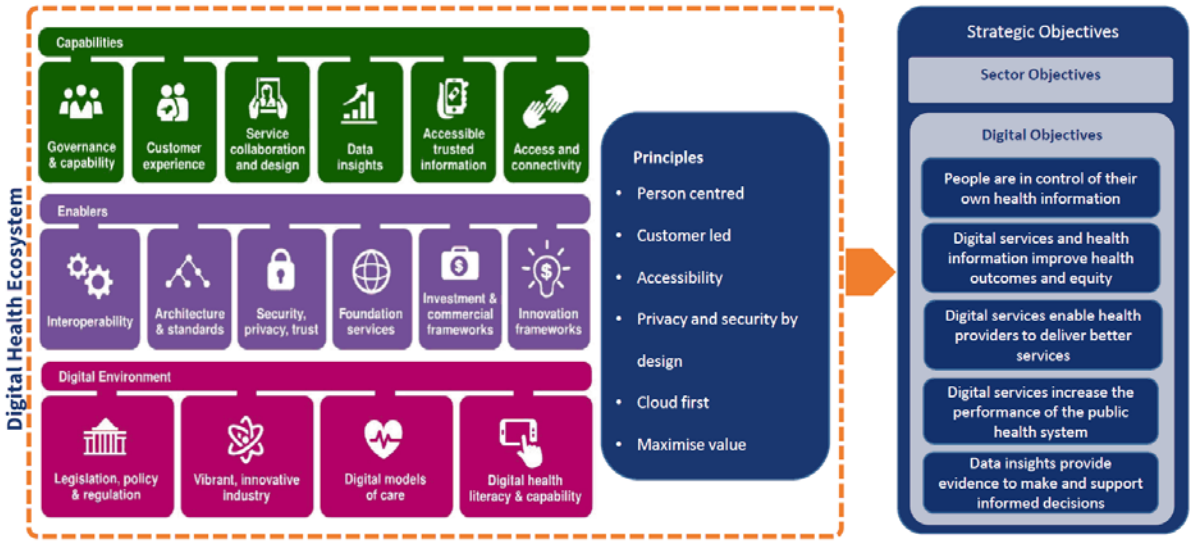
- most respondents find the current Alert Level rules clear (97%) and easy to follow (97%)
- most (89%) still see themselves as in good health
- 76% are satisfied with life these days
- 10% of respondents experienced anxiety or depression symptoms in the past week
- 19% felt lonely or isolated to some extent in the past week, compared with 34% in the first week of surveying
- 6% have struggled to pay basic living costs, such as for food or accommodation, in the past week
- some initial worries are gradually decreasing over time. For example, 15% are worried about the risk of getting COVID-19 compared with 39% in the first week of surveying.

https://www.health.govt.nz/system/files/documents/pages/covid-19_health_and_wellbeing_survey_-_tenth_week_results.pdf

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-novel-coronavirus-resources-and-tools/covid-19-health-and-wellbeing-survey

Digital Health Strategic Framework

The Ministry of Health is developing a Digital Health Strategic Framework to guide the use of digital technologies and data to support a strong and equitable public health and disability system.



https://www.health.govt.nz/our-work/digital-health/digital-health-strategic-framework

Kia Kaha, Kia Māia, Kia Ora Aotearoa: COVID-19 Psychosocial and Mental Wellbeing Recovery Plan

May 2020

Part of this Plan is the use of technology to support people.

The aim of psychosocial response and recovery to the pandemic is to minimise the psychological, physical and social consequences of the pandemic, and to enhance the emotional, spiritual, cultural, psychological, social and physical wellbeing of individuals, families, whānau and communities in the immediate response phases, and in medium to long-term recovery. This includes protection from further harm. The psychosocial response to COVID-19 must be grounded in equity and ensure responsiveness for Māori and for other population groups who experience inequitable outcomes or have unique needs, while also meeting the needs of the entire population. It must also recognise that preparedness, response and recovery coexist throughout the event rather than proceeding in a linear sequence. Recovery is a continual process in response to changing circumstances.

https://www.health.govt.nz/system/files/documents/publications/covid-19-psychosocial-mental-wellbeing-recovery-plan-15may2020.pdf

Māori Response Action Plan

April 2020

The Initial COVID-19 Māori Response Action Plan (the Plan) establishes a framework to ensure the health and wellbeing of Māori is protected during the COVID-19 pandemic.

This Plan also makes an important contribution to the all-of-government response to COVID-19 in mitigating the social impact of COVID-19 on whānau Māori.

"The severe impact of the 1918–19 pandemic on Māori and the increased susceptibility of Māori to the 2009 H1N1 influenza A pandemic provide rationale to strengthen the Māori-specific response to COVID-19. It is evident from previous pandemic responses that the business-as-usual model previously used preferentially benefited non-Māori and failed to protect whānau, hapū, iwi and Māori communities from the worst outcomes. It is critical that the specific needs of Māori, particularly equity and active protection, are integral to the health and disability response to COVID-19". P.5.

https://www.health.govt.nz/system/files/documents/publications/initial_covid-19_maori_response_action_plan_-_web_.pdf

COVID-19: Mental health and addiction providers

Guidance and information for mental health and addiction professionals managing services during the COVID-19 response.

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-resources-health-professionals/covid-19-mental-health-and-addiction-providers

COVID-19: Āwhina app

Āwhina puts tailored COVID-19 information in the hands of health workers.

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-resources-health-professionals/covid-19-awhina-app

National Telehealth Service

The National Telehealth Service provides an integrated platform for people to access virtual health information, advice and support from trained health professionals.

https://www.health.govt.nz/our-work/national-telehealth-service

Evaluation 2019

https://www.health.govt.nz/system/files/documents/pages/phase_2_report_on_the_national_telehealth_service_evaluation_28_02_19_redacted.pdf

Telehealth and online tools

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-resources-health-professionals/telehealth-and-online-tools

Health Quality & Safety Commission

https://www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/novel-coronavirus/

EMental Health International Collaborative

Supported by peak mental health organisations from Sweden, Canada, United States, Australia and New Zealand, the eMental Health International Collaborative (eMHIC) facilitates knowledge exchange between policy makers, people with lived mental health experience, researchers, mental health practitioners and industry representatives. In the spirit of its mission, eMHIC is excited to host a series of digital mental health webinars reflecting multiple countries as anchoring conversations.

eMHIC's inaugural webinar is focussed on New Zealand and is complemented by a panel of international experts.

https://www.medtechcore.org.nz/2020/06/11/the-art-and-science-of-a-digital-mental-health-response-to-covid-19/

COVID-19 Your Guide to Telehealth in New Zealand

https://www.telehealth.org.nz/

Pasifika Communities

Loneliness, isolation, anxiety and fear among New Zealand's Pacific elderly population are just some of the challenges Treasuring Older Adults (TOA) Pacific Inc. is tackling during the COVID-19 outbreak.

The South Auckland-based not-for-profit organisation founded in 1995 promotes the rights, safety, wellbeing and prolonged independence of Treasured Older Adults, aiga carers and Pacific families.

Founder and Chief Executive Officer of TOA Pacific Malia Hamani says it is the organisation's vision to ensure every Pacific older adult, aiga carer and family in Aotearoa is safe, well and valued by their community.

https://www.mpp.govt.nz/news-and-stories/covid-19-and-staying-in-touch-with-older-pacific-peoples/

Te Pou

https://www.tepou.co.nz/initiatives/covid-19/253

Te Rau Ora

https://terauora.com/our-work/public-health/coronavirus-covid-19/

Video by Sir Mason Durie re COVID-19 and Māori issues and approaches.

https://youtu.be/BmuL7aDKGZY

Infographic

https://terauora.com/wp-content/uploads/2020/05/Strategies-for-Maori_Providers-during-Pandemic.jpg

Werry Workforce Whārarau

COVID-19 (Coronavirus) Resources & Information for the Workforce and for Whānau

https://werryworkforce.org/professionals/publications-and-resources/covid-19-coronavirus-resources-information-workforce-and

Matua Raki

https://www.matuaraki.org.nz/

eMental Health: From innovation to implementation

https://www.matuaraki.org.nz/news/emental-health/1216

Scotland

Scottish Government Digital Health and Care Directorate showcasing tools and resources that may be useful in response to COVID-19

April 6 2020

The Scottish Government Digital Health and Care Directorate will be providing a weekly update on Digital Health and Care tools and resources that may be useful in response to COVID-19.

In addition to sharing important information and links to Scottish Government resources, we will include other resources from UK, European and international sources which may be of interest. Please note that our sharing of such information is not an endorsement by Scottish Government, so please use at your own discretion.

https://echalliance.com/digital-health-and-care-supporting-covid-19-by-the-scottish-government-digital-health-and-care-directorate/

Scottish Government: Healthier Scotland

These are worrying and uncertain times. The coronavirus outbreak has changed daily life for us all in Scotland and has had a real impact on how many of us are feeling. It's ok to not feel yourself right now, and we have some great tips to help get you through it.

https://clearyourhead.scot/

First Minister addresses the nation 23/3/20

"COVID-19 is the biggest challenge of our lifetimes. In recent days, we've been asked to make changes to our lives that would have been unimaginable a few weeks

ago. COVID-19 is the biggest challenge of our lifetimes. The number of cases is set to rise sharply. We must do all we can to slow it down and save lives. So I want to talk to you directly about what we can all do to help - and offer some words of reassurance in what I know is an anxious time. All of us must act now to slow the spread of the virus".

https://www.gov.scot/news/first-minister-address-to-the-nation-1/

Mental Health in COVID times: Pop-up Ecosystem sessions 1hr 34mins

In the first of what will be a mini pop-up ecosystem series on the impact of COVID-19 on Digital Health services and provision, 7 of ECHAlliance's Ecosystems from Northern Ireland, North West Coast England, Scotland, Brussels, Serbia, Montreal and the Highlands and Islands Ecosystem took part in a Pop-Up Ecosystem with our Social Prescribing champions, Elemental.

The topics included Digital Storytelling to help with resilience; Support for Doctors, Online Psychotherapy Support, Psychiatric Support Online, Wellbeing Support for Health Tec Clusters and Social Prescribing within Mental Health Services.

https://echalliance.com/mental-health-preventing-the-2nd-pandemic-of-covid/

Scottish Government's Technology Enabled Care team host a multi-disciplinary Learning Network

Many of the staff who attend Learning Network events are working across health, social care, third sector and housing organisations and are working hard to support the COVID-19 response. However, in keeping with the spirit of our annual Learning Network day, we were determined to continue to showcase some of the great work which is going on in Scotland to deliver digitally enabled services:

- Expanding the use of video enabled consultation & working with the third sector – Penumbra
- Exploring digital services in Care and Nursing Homes
- Remote Health Monitoring
- Telecare – digital drop in session with experience from a Housing Association and Alzheimer Scotland
- Digital ethics: making decisions in COVID-19 times – reflections
- Young people co-designing Technology Enabled Care during the COVID-19 crisis
- Reflections from the delivery of the TEC programme on the past 2 months.

https://tec.scot/events/2020/digital-health-care-learning-network-2020-webinars/

FutureScot's 2020 Digital Health & Care Conference: A Data-Led Healthcare Revolution

Wednesday 23 September, Sheraton Grand Hotel, Edinburgh

https://canongate.swoogo.com/DigitalHealthandcare2020

Scotland's Digital Health & Care Strategy 2018

This strategy is therefore about how care for people in Scotland can be enhanced and transformed through the use of digital technology. It is not specific to individual specialisms, groups or organisations: it encompasses the whole range of health, social care and wellbeing services commissioned and provided by Health Boards, by Integration Authorities and by Local Authorities and their third and independent sector partners. Importantly, it extends as well to informal care, self-care, prevention and public health.

https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2018/04/scotlands-digital-health-care-strategy-enabling-connecting-empowering/documents/00534657-pdf/00534657-pdf/govscot%3Adocument/00534657.pdf

Scottish Association for Mental Health

Mental health & COVID-19 Information Hub

https://www.samh.org.uk/about-mental-health/self-help-and-wellbeing/coronavirus-information-hub

Health Protection Scotland

https://www.hps.scot.nhs.uk/a-to-z-of-topics/covid-19/

See Me Scotland

Talking about Mental Health During the Coronavirus Outbreak

https://www.seemescotland.org/news-and-blogs/talking-about-mental-health-during-the-coronavirus-outbreak/

The Ferret Fact Service

FFS was the first Scottish fact-checker accredited by the International Fact-Checking Network fact-checkers' code of principles

https://theferret.scot/ferret-fact-service/

COVID-19

https://theferret.scot/?s=COVID-19

Sweden

Government Offices of Sweden

Expanded digital contact channels to safeguard mental health

The Government considers that the COVID-19 pandemic can affect people's mental wellbeing. It is therefore important that contacting mental health services is easy. The Government wants to support effective communication among care services, patients and relatives in cases where physical visits are not possible as a result of the spread of COVID-19.

The Government has therefore instructed the Legal, Financial and Administrative Services Agency to provide SEK 24 million to the regions to develop and strengthen digital contact channels to activities that receive patients with mental health issues.

The three metropolitan regions – Stockholm Region, Region Västra Götaland and Region Skåne – will each receive SEK 2 million. The other regions will each receive SEK 1 million

https://www.government.se/articles/2020/05/about-covid-19--for-older-people-people-with-health-conditions-and-health-care-and-social-services-staff/

Sweden's response to COVID-19 Lena Hallengren, Minister for Health and Social Affairs

Six-page summary of Sweden's approach.

https://apps.who.int/gb/COVID-19/pdf_files/23_04/Sweden.pdf

Government Offices of Sweden

Decisions and guidelines in the Ministry of Health and Social Affairs' policy areas to limit the spread of the COVID-19 virus

The Government continues to maintain a close dialogue with relevant expert government agencies on effective measures to counter the spread of the coronavirus, which can cause COVID-19. Read more below about the most recent recommendations and decisions in the Ministry of Health and Social Affairs' policy areas of public health, medical care, social care and social insurance.

https://www.government.se/articles/2020/04/s-decisions-and-guidelines-in-the-ministry-of-health-and-social-affairs-policy-areas-to-limit-the-spread-of-the-covid-19-virusny-sida/

European Society for Research on Internet Interventions

Due to the current situation regarding covid-19 we are sorry to announce that we have decided to postpone the SWEsrii conference until the autumn. Many of us who attend the conference work in the health care industry and right now every resource is needed. We have therefore decided that it is better to postpone the conference. On behalf of the Organizing Committee, it is our great pleasure to welcome you to SweSRII – The 11th Swedish Congress on Internet Interventions.

The Congress will be held at "Nya Regionens Hus" in Gothenburg, right next to the central station. We have invited researchers from Sweden and all over Europe to

share their knowledge and experiences on using and developing Internet-based interventions.

http://esrii.org/sweden/

EMental Health Collaborative – Sweden is part of this

Supported by peak mental health organisations from Sweden, Canada, United States, Australia and New Zealand, the eMental Health International Collaborative (eMHIC) facilitates knowledge exchange between policy makers, people with lived mental health experience, researchers, mental health practitioners and industry representatives.

https://www.medtechcore.org.nz/2020/06/11/the-art-and-science-of-a-digital-mental-health-response-to-covid-19/

The Netherlands

Government of the Netherlands

National Institute for Public Health and the Environment *Ministry of Health, Welfare and Sport*

https://www.rivm.nl/en

COVID-19

https://www.rivm.nl/en/novel-coronavirus-covid-19/current-information

Models for the spread of the virus are public and accessible

RIVM National Institute for Public Health and the Environment is conducting research on the novel coronavirus that includes the use of models. When the studies are completed, the results are published. RIVM publishes about the research studies in international peer-reviewed journals. This leads to open access publications: publications that are accessible to everyone. The codes and data we use are also public. These are the models and publications that are related to these research activities.

https://www.rivm.nl/en/novel-coronavirus-covid-19/modelling/models-are-public-and-accessible

Applying behavioural science to COVID-19

https://www.rivm.nl/en/novel-coronavirus-covid-19/research/behaviour

Blockchain technology and infectious disease control

Blockchain technology is, in principle, an applicable technique to strengthen the accessibility, traceability and controllability in the international sharing of samples and data for infectious disease control, research & development (R&D). Recent advances in blockchain technology can help overcome complex administrative and legal barriers for the benefit of Open Science and global collaboration, if implemented by a 'coalition of the willing'.

This is a brief summary of the research outcome published 15 May in Science conducted by the Athena Institute of Vrije University Amsterdam and RIVM National Institute for Public Health and the Environment.

https://www.rivm.nl/en/news/blockchain-technology-and-infectious-disease-control

Recommendations for policy and practice of telepsychotherapy and e-mental health in Europe and beyond

This 2020 paper is a report of the Project Group on eHealth of the European Federation of Psychologists' Associations. It focuses on:

(1) how to make optimal use of technology in psychotherapeutic practice,
(2) how to integrate e-mental health into the healthcare system to allow for a safe, transparent and effective environment for (self) care, and
(3) how to develop e-mental health applications.

The COVID-19 pandemic needs new solutions for therapy. The current paper aims to support the provision of high-quality e-mental health, including telepsychotherapy, to clients by reporting recommendations to psychotherapists, health services and regulatory agencies, and developers. Currently, the use of technology may find its way to psychotherapists and healthcare professionals solely out of the urgent need, but if the proposed recommendations are taken into consideration, e-mental health may demonstrate its added value for clinical practice and healthcare systems in general.

https://epsychology.be/wp-content/uploads/2020/05/Van-Daele-et-al.-in-press-Recommendations-for-policy-and-practice.pdf

COVID-19 and Digital Technologies The impacts on Privacy, Security and Digital Ethics Deloittes Netherlands

- Surveillance Technologies
- Robots and Drones
- Misinformation
- Privacy, Security and Digital Ethics

https://www2.deloitte.com/nl/nl/pages/risk/articles/covid-19-and-technology.html

How the Dutch are Responding to Coronavirus with Digital Healthcare eHealth push in the Netherlands has been accelerated by the COVID-19 crisis

The COVID-19 crisis that has further sped up innovation and adoption in digital healthcare, stemming from the global need for efficient and effective solutions. Planned measures have been accelerated and an abundance of new digital initiatives from across the healthcare sector have come to fruition.

https://investinholland.com/news/how-dutch-have-responded-digitally-corona-crisis/

Dutch Research is Working Together Towards Coronavirus Solutions

https://investinholland.com/news/dutch-research-working-together-towards-coronavirus-solutions/

Dutch geographical dashboards give insight into coronavirus distribution

Dutch GIS vendor/ distributor Esri Nederland currently provides geographical dashboards to show confirmed coronavirus infections per municipality and per 1,000 inhabitants in the Netherlands. Vulnerable locations are also mapped and there is a dashboard with the most up-to-date information.
https://www.geospatialworld.net/blogs/dutch-geographical-dashboards-give-insight-into-coronavirus-distribution/

US

CDC

Using Telehealth to Expand Access to Essential Health Services during the COVID-19 Pandemic

This Guidance describes the landscape of telehealth services and provide considerations for healthcare systems, practices, and providers using telehealth services to provide virtual care during and beyond the COVID-19 pandemic. Several telehealth modalities allow HCP and patients to connect using technology to deliver health care:

Synchronous: This includes real-time telephone or live audio-video interaction typically with a patient using a smartphone, tablet, or computer. In some cases, peripheral medical equipment (e.g., digital stethoscopes, otoscopes, ultrasounds) can be used by another HCP (e.g., nurse, medical assistant) physically with the patient, while the consulting medical provider conducts a remote evaluation.

Asynchronous: This includes “store and forward” technology where messages, images, or data are collected at one point in time and interpreted or responded to later. Patient portals can facilitate this type of communication between provider and patient through secure messaging.

Remote patient monitoring: This allows direct transmission of a patient’s clinical measurements from a distance (may or may not be in real time) to their healthcare provide

https://www.cdc.gov/coronavirus/2019-ncov/hcp/telehealth.html

Digital Contact Tracing Tools

https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/digital-contact-tracing-tools.html

Using Digital Technologies in Precision Public Health: COVID-19 and Beyond
With the global spread of COVID-19, there is a proliferation of scientific information and publications that use novel approaches such as genomics and precision health tools (e.g., big data, wearables, and digital devices) in surveillance and epidemiologic investigations. Could these new technologies provide added value to traditional approaches?

https://blogs.cdc.gov/genomics/2020/04/06/using-digital/

COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

SAMHSA

Training and Technical Assistance Related to COVID-19

https://www.samhsa.gov/sites/default/files/training-and-technical-assistance-covid19.pdf

The Impact of COVID-19 on Black and Latino Communities

The coronavirus (COVID-19) pandemic has revealed deep-seated inequities in health care for communities of color and amplifies social and economic factors that contribute to poor health outcomes. Recent news reports indicate that the pandemic disproportionately impacts communities of color, compounding longstanding racial disparities. As of April 15, 2020, case data from CDC show that in COVID-19 cases where race was specified, Blacks, who comprise 13 percent of the total U.S. population (U.S. Census Bureau, 2018), make up 30 percent of COVID-19 cases; Latinos, who make up 18 percent of the population (U.S. Census Bureau, 2018), account for 17 percent of COVID-19 cases. Similarly, hospitalization rates due to COVID-19 disproportionately affect Blacks.

Disparities in identified cases and deaths also vary across states, with a disproportionately high percentage of Blacks and Latinos affected as shown below (Kaiser Family Foundation, 2020; CDC, 2020; U.S. Census Bureau).

https://www.samhsa.gov/sites/default/files/covid19-behavioral-health-disparities-black-latino-communities.pdf

American Psychological Association

Using Apps in Clinical Practice: Competency Considerations Hosted by the American Psychological Association(APA) in Collaboration with the Coalition for Technology in Behavioral Science (CTiBS).

https://www.apa.org/members/content/clinical-practice-apps-slides.pdf

Providing relationship-oriented psychotherapy during COVID-19
How telehealth technology affects empathic attunement and rapport with patients.

https://www.apaservices.org/practice/news/relationship-psychotherapy-covid-19

Working during COVID-19: Therapists share their telemental health experiences

Most of us are lucky, points out Plummer. “We have access to technology that we didn't have ten years ago,” she says. But not everyone is so fortunate. It's easy to assume that everyone has Wi-Fi and a smart phone and can log in for an online meeting — but that's not always true of low-income families and some of the elderly population. Also, there are some clients who might have access to technology, but telemental health is just not a good fit for them. In these instances, it is harder to treat clients during times of social isolation.

https://www.apa.org/members/content/telemental-health-experiences

Mental Health Technology Transfer Network (funded by SAMHSA)

The Center for Connected Health Policy defines telehealth as “Telehealth is a collection of means or methods for enhancing health care, public health and health education delivery and support using telecommunications technologies.” Given the current public health emergency, telehealth has become an essential way to provide mental health services.

Agency for Healthcare Research and Quality - The Evidence Base for Telehealth: Reassurance in the Face of Rapid Expansion During the COVID-19 Pandemic
Center for Connected Health Policy National Telehealth Policy Resource Center Telehealth Resource Centers: A Framework for Defining Telehealth

https://mhttcnetwork.org/centers/mhttc-network-coordinating-office/responding-covid-19-telehealth

8 charts on internet use around the world as countries grapple with COVID-19
Pew Research 2020

“There are stark digital divides. Younger people, those with higher incomes and those in wealthier countries are more likely to be digital technology users.

Many people surveyed also use social media, but social media usage is not ubiquitous, even in economically advanced nations like Germany and Japan".

https://www.pewresearch.org/fact-tank/2020/04/02/8-charts-on-internet-use-around-the-world-as-countries-grapple-with-covid-19/

NIMH

Digital Mental Health: Innovating in a Time of High Anxiety

In this time of increased anxiety and physical distancing due to the coronavirus (COVID-19) pandemic, many people are looking for digital technology solutions to help them manage their mental health. Mental health apps are one of the fastest-growing sectors of the digital marketplace, with more than 10,000 apps available. These apps claim to, among other things, boost your mood, increase your sleep, and even help you manage your addiction.

https://www.nimh.nih.gov/news/science-news/2020/digital-mental-health-innovating-in-a-time-of-high-anxiety.shtml

ESRI

Mapping Epidemics: From SARS, Zika, and Ebola to the Pandemic of COVID-19

The American company Esri has helped numerous governments and bodies around the world (including the World Health Organization) to develop corona related geographical dashboards. They show the infections, the number of deaths and cures per country. For example, there is a dashboard from John Hopkins University in collaboration with Esri that keeps track of the number of infections, deaths and cures per country. For example, there is a dashboard from John Hopkins University in collaboration with Esri that keeps track of the number of infections, deaths and cures per country.

Governments and health organizations use GIS mapping to slow the spread of viruses, like SARS, Zika, Ebola, and now COVID-19.

Key Takeaways

- Tracking disease helps scientists determine its cause and behavior.
- Maps of hard-hit areas alert residents and reinforce the need for caution.
- Locating vulnerable populations informs response

https://www.esri.com/about/newsroom/blog/maps-that-mitigate-epidemics/

Institute for Healthcare Improvement (IHI)

Digital Mental Health and COVID-19: Using Technology Today to Accelerate the Curve on Access and Quality Tomorrow

Looking beyond the immediate consequences of infection with the virus and the mental health impact of self-quarantine and social distancing, a second mental health crisis may occur.

In times of economic recession, there is often high prevalence of mental health disorders, misuse of substances (or substance use disorder), and deaths from suicide [33]. The need for more mental health services will tax an already overburdened health care system, and digital solutions will be called upon again. Learning from decades of prior research and experience, hybrid solutions that offer a blend of face-to-face and online or app-based treatment will be the most effective solution [14,18].

Bending the curve in the right direction (Figure 1) will require funding, research, policy changes, training, and equity, but these investments will continue to yield higher returns at every step.

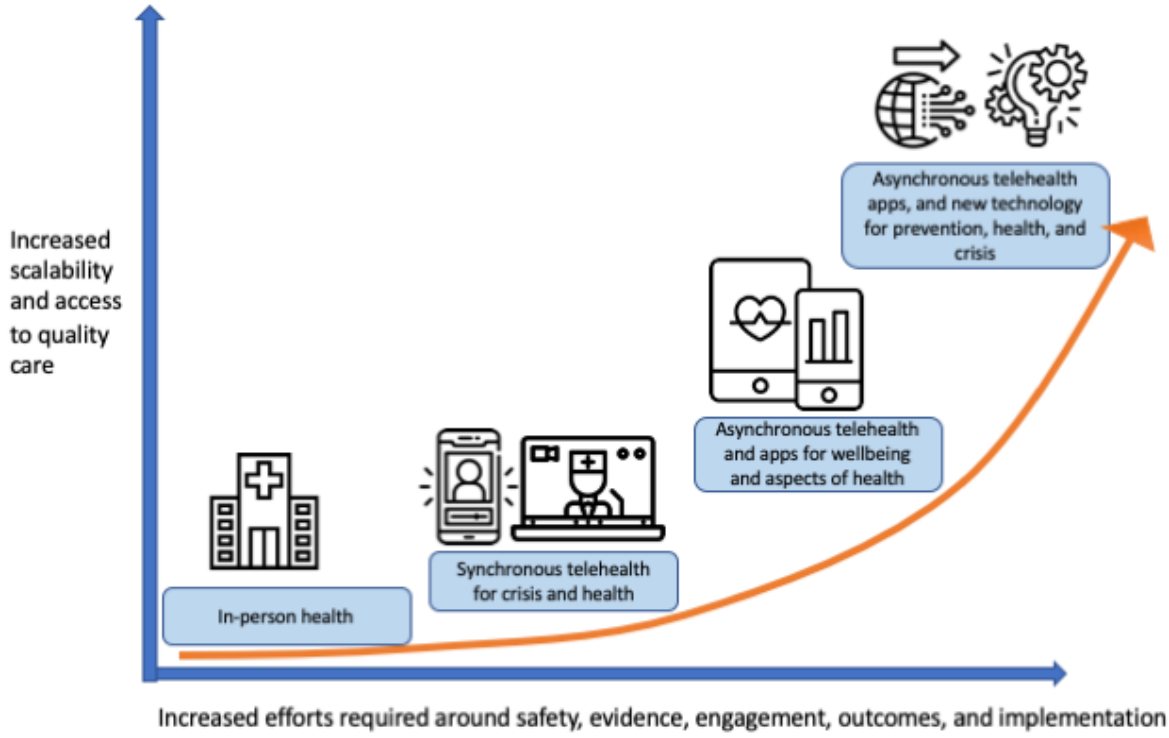


Figure 1. Bending the curve further on access and quality of care will require increased efforts around safety, evidence, engagement, outcomes, and implementation. However, these increased efforts will yield greater returns at each step. The COVID-19 crisis has (at least temporarily) removed implementation barriers to synchronous telehealth through regulatory changes, and the evidence, safety, and engagement were already in place before. The next steps to use apps toward asynchronous telehealth will require continued effort but yield even greater increases in access to high-quality care.

https://mental.jmir.org/2020/3/e18848/

Psychiatry

The Need for a Mental Health Technology Revolution in the COVID-19 Pandemic 3 June 2020

"We argue that what we need during a public health crisis like this is a digital mental health revolution: scaling up the delivery of confidential mental health services to patients across a wide range of platforms, from telemental health to mobile interventions such as apps and text messaging. Here, we provide an overview of technological tools which could help to decrease the mental health burden of COVID-19, provide recommendations on how they could be used and scaled-up, and discuss considerations and limitations of mental health technology applications".

https://www.frontiersin.org/articles/10.3389/fpsyt.2020.00523/full

McKinsey & Co: Returning to resilience: The impact of COVID-19 on mental health and substance use

As governments race to contain COVID-19, it is important to know the actions society can take to mitigate the behavioral health impact of the pandemic and economic crisis.

1. Strengthen community prevention
2. Integrate behavioral and physical health services
3. Address unemployment and income disparities

https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/returning-to-resilience-the-impact-of-covid-19-on-behavioral-health#