

## WHAT IS IT?

Ginger.io aims to deploy the untapped potential of existing digital technology for better managing mental health. 91% of people keep their phone at close reach, 24 hours a day. Your smart-phone knows where you go, when you sleep, how often you call and text, when you get up. It can notice small changes in your behaviour that could signal illness.

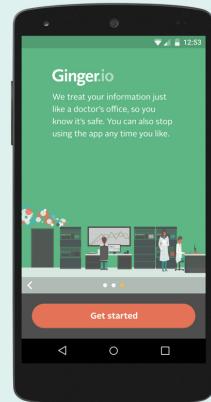
If you suffer from depression, Ginger.io can pinpoint the onset of an episode by noting disrupted sleep patterns and self-imposed social isolation with fewer texts and calls. It can also differentiate an episode of depression from an anxiety attack, in which there tends to be a greater frequency of contact with a small group of people.

Often, behaviour will change before you become aware of symptoms, so Ginger.io can warn you, advise treatment and connect you to the relevant professionals, when needed. Ginger.io has also pioneered behavioural tracking of conditions ranging from diabetes to obesity and flu, providing an analytical tool and early warning system for individuals, governments and healthcare practitioners alike.

Ginger.io also links users to a personal coach 24/7 through secure texts. The coach reviews data generated from users smart-phone to better personalise suggestions for care and management, including access to video therapy and psychiatry.

## OUTCOMES

Ginger.io is being used by Type 2 diabetes sufferers to manage their condition and the app is collating all health data so that participation contributes to science overall, improving care for everyone.



# PATIENTS KNOW BEST, UK



## WHAT IS IT?

Patients Know Best is the world's first Patient-Controlled Health Information Exchange (PCHIE). Built around the patient, rather than an organisation, it gives patients their health and care information, whenever they need it. Users can share with whoever they trust, wherever they go and manage their well-being in a proactive way at a time that suits them.

Patients can see all of their medical data, connect their wearable activity devices, communicate with their health network and track their signs and symptoms. Records are categorised into different disciplines and can be shared depending on the consent the patient allows.

"Over the years, I noticed that my clinical team was relying on me to know important information. This was not because I trained as a doctor myself, but because I was the only one who turned up to all the appointments! This is how patients know best. And this is why we built this web site—to give each patient better tools to manage their health." - Dr. Mohammad Al-Ubaydli, Founder & CEO

PKB works on any computer, and also helps practitioners to streamline the management of patients through digital services, such as virtual outpatient follow-ups, secure messaging, lab results and reports, home monitoring and sharing care plans with everybody connected to the patient's care.

## OUTCOMES

There was a 30% reduction in unplanned GP visits post surgery; improved diagnosis with epilepsy services, and a reduction in unplanned emergency admissions for long-term conditions amongst users.

Going paperless at the point of care; reduction in costs associated with non-attendance rates, and savings to the local health economy on face-to-face appointments amount to significant financial savings. Financial returns equate to £3 to £5 for every £1 spent on Patients Know Best.

## WHAT IS IT?

Lambeth and Southwark have some of the highest rates of sexual ill health in England. Poor sexual and reproductive health can have significant long term health consequences, including ectopic pregnancy, sub-fertility and a life living with HIV.

SH:24 is a new online sexual health service for Southwark and Lambeth, delivered in partnership with the NHS. The service provides people with free STI test kits, information and advice - 24 hours a day. Users can test for chlamydia, gonorrhoea, syphilis & HIV.

A test kit arrives in a plain envelope and contains everything needed for a user to provide samples that SH:24 will test in their lab.

There's a blue free-post return envelope included with every test, so it can be sent back for analysis. User details do not appear on any of the samples or on the free-post return envelope.

Users are updated by text message and will be updated both when their test kit has been dispatched and when the lab receives their samples.

Results are texted to users as soon as possible - always within 7 days. If a person is found to have an infection, SH:24 will advise them on how to get treatment and further support. In some cases, an NHS clinician may call to offer additional advice.

Prototyping was at the heart of the design of this the service. The team collaborated with service users, clinicians, clinic receptionists, clinic managers, public health consultants, laboratories, commissioners, safeguarding boards and information governance committees, as well as others. 17 prototypes were tested before the final design was created.



# TYZE, Global

## WHAT IS IT?

People with strong social networks have better health, employment, educational outcomes and also require less medical and social care than those who do not. However, while there's often much capacity for help from family, friends and others, it can be difficult to co-ordinate this support.

Tyze aims to address this gap, by enabling users to co-ordinate and build stronger caring networks and create a meaningful and active role for friends, family and neighbours who are a critical part of people's care.

The existing primary user base are people who may be critically ill, older people, and people with disabilities, as well as their carers. Using the online tool users can create a secure network centred around their care needs.

Once a private network has been created, everyone in the community can collaboratively contribute. Volunteer carers can quickly see specific ways they can lend a hand – such as getting groceries, or driving to an appointment. Everyone can post tasks, store personal care plans, plan social events, share pictures and send messages.

Tyze encourages open communication and helps everyone in the network feel connected and updated – regardless of location or role. At the same time, it can help people with care needs to live independently in their own homes, with the support of their network.

## OUTCOMES

Since launching in 2007, 31 organisations now use Tyze and 10,000 networks have been created.

In an online survey completed by 70 network participants, 78% said the network helped them better connect with the individual at the centre of the network, and 58% said it helped them better support that person.



# VR FOR PARANOIA, UK

## WHAT IS IT?

Research carried out by Oxford University with patients from Oxford Health NHS Foundation Trust evaluated the use of virtual reality simulations to treat patients with severe paranoia by allowing them to learn the situations they feared were actually safe.

The experiment involved patients with persecutory delusions – people who mistakenly think that others are watching them or are trying to cause them harm of some kind. This can often lead to safety-seeking behaviour, wherein patients believe that particular threats were averted because of avoidance rather than because the threat was erroneous to begin with.

Researchers developed a VR experience to expose patients to situations that were likely to cause them paranoia-related anxiety. Compared to patients who underwent exposure therapy, VR cognitive therapy led to 'large reductions in delusional conviction'

## IMPACT & SCALE

Patients divided into two: one full confrontation of fears and others slowly normalising. Over 50% of those who fully confronted fears said that after a day of virtual reality therapy, they no longer had severe paranoia, and roughly 20% of the other group.



## WHAT IS IT?

The Babylon health app gives users access to their doctor, 12 hours a day, 7 days a week.

People can have GP appointments and even therapy sessions through a remote video chat. A summary of their appointment is sent to patients and their prescriptions will be sent to a pharmacy near them, where they can collect it.

The app also incorporates health data monitoring, from pulse and blood pressure to liver function, using a combination of in-phone features and at-home test kits. People can check symptoms from their smartphone or send photos and texts to doctors to receive a quick response. If a user has a small question and doesn't want to see a doctor, they can just send a text message and a photo. Instant, discounted referral to specialists and consultants is available if needed. Tests, x-rays and scans can be booked immediately.

Through Babylon users can keep track of activity, calories and sleep, as well as look at the relevant metrics related to bones, and kidney function.

Babylon are developing an artificial intelligence system that will be able to accurately diagnose independently of a doctor, as well as act an aide to health professionals - using a database of hundreds of millions of combinations of symptoms and cases. This AI system could enable the provision of low cost healthcare on a huge scale.

The service costs £4.99 a month for unlimited amounts of consultation, seven days a week, 12 hours a day.

## OUTCOMES

Babylon is currently being used by 250,000 people in the UK and it will become available in Rwanda soon. Currently there is not much information available on their impact.

They hope to use their technology as a catalyst for social change. The goal is to “give affordable health care services to every human being on Earth.” - Founder, Ali Parsa

## WHAT IS IT?

eSMART-MH is an avatar-based depression self-management intervention. Young adults interact with healthcare providers and a health coach in a virtual primary care environment to practice effective communication about depression symptoms and received tailored behavioural feedback.

The eSMART-HD technology simulates patient-provider dialogues, with the aim of teaching users how to interact with virtual health care providers that include nurses, counsellors and doctors.

"Our goal is to teach young adults how to interact with their health care providers to get what they need to manage mental illness" - Pinto-Folt

## OUTCOME

In a three-month pilot study, those who received eSMART-MH showed a clinically significant reduction in their depressive symptoms while those assigned to the attention control group showed no change.



# CHAMPIONS OF THE SHENGHA



## WHAT IS IT?

Champions of the Shengha is an emotionally responsive game, played with a wearable sensor on iOS & Android.

It is a fantasy card battling game, created by Shift, in which players enter a global tournament and duel with opponents to become the ultimate Shengha warrior.

Players must summon their inner strength and control their emotions by mastering their breathing. Their ability to do this is what determines how many spells, creatures, weapons and armour they have to defeat their opponent. The more they can stay calm and focused in real life, the more powerful they are in the game. Through regular play, users can master emotional control, equipping them to thrive within the game and improving their capacity to deal with stress, anxiety and frustration.

A bluetooth ear-clip measures players' Heart Rate Variability (HRV) - a psychophysiological marker of stress and anxiety.

The game aims to train people in HRV via diaphragmatic breathing techniques, which are well evidenced to be effective in reducing stress and managing anxiety. These techniques are at the heart of mindfulness meditation and are recommended by health organisations including the NHS, BUPA and the mental health organisation MIND.

The game dynamically reflects player's HRV back to them. Through play, they learn to master the skill of raising their HRV through breathing and consciously exert control over the way they respond to stress.

## OUTCOME

Trials (conducted over the last 2yrs with groups of between 10 and 90 young players aged 10-15) demonstrated that the game effectively trains players to manage their emotional state through diaphragmatic breathing.

84% of trial users were able to reliably raise their HRV during focussed breathing time in the game, a state that correlates with lower stress and anxiety. 2 in 4 of the testers reported getting better at staying focussed within the game. 1 in 4 said that had already started applying the focussing techniques outside of the game.

# BIG WHITE WALL



## WHAT IS IT?

Big White Wall (BWW) is a digital support and recovery service for people (aged 16 and over) who are stressed, anxious, low or not coping. At the heart of BWW is a community of members who support and help each other, share what's troubling them in a safe and anonymous environment, with the guidance of trained professionals, who are online 24/7. The services BWW offer include:

- Support Network: a community of peers, professionally staffed 24/7, which enables safe, anonymous support through talking therapies and creative self-expression.
- Guided Support: a range of self-managed and facilitated programmes for individuals and groups. Include anxiety, depression, sleep, smoking and alcohol use programmes.
- Live Therapy: a range of real time therapies by instant text, audio or video from a panel of approved BWW therapists offering CBT, IPT, person-centered counselling and integrative counselling.

## WHY IS IT DIFFERENT?

The anonymity encourages people who would otherwise be unwilling to share their feelings to engage.

The 'therapeutic moderation', i.e. the moderation of online conversations. It is not just there to control bad behaviour but is designed to be therapeutic; clinicians are there to encourage and motivate users.

Virtual therapy, which enables users to step up, at their own pace, from written communication with a therapist, to audio communication, and video.

A lead therapist maintains supervision of all 'Wall Guides'. This clinical overview and one-to-one support for users is blended with peer support from the wider BWW community.

## IMPACT & SCALE

In a survey of BWW members, 46% reported sharing an issue or feelings on BWW for the first time and 70% of members from local health contracts reported that using Big White Wall improved their wellbeing in at least one way.

BWW delivers to the health sector, the armed forces, employers and universities in the UK as well as in the US, Canada, Australia and New Zealand. It now has more than 35,000 users.

## WHAT IS IT?

XenZone was established in 2001 with the purpose of making it easy and safe for all generations to access the best emotional and mental health services as and when they need them. Their organisational motto is 'Future Thinking for Mental Health'.

Xenzone are pioneers of online counselling and support in the UK. Their ground breaking service for children and young people - Kooth - was the first online counselling service in the UK when they started in 2004.

They now have a team of over 70 qualified counsellors, support workers and therapists delivering online counselling and support to over 35 Local Authorities across the UK. XenZone also provides Qwell - a new service for adults.

Individuals log on to Qwell through their smart phone, tablet or computer to access counsellors online up to 10pm, 365 days a year, along with self-help materials co-produced by other site users and support staff, live moderated forums and fully-moderated peer-to-peer support.

XenZone's team of accredited counsellors, therapists and support workers provide guided and outcome-focused support for each individual.

When commissioned in their local authority, any individual can access Qwell for free. Where a need is identified for specialist services, Xenzone will work with their local NHS partners to ensure an integrated model of support, with the digital support being part of and supporting the face to face interactions.

## OUTCOME

As people use Qwell, they score their progress through XenZone's own 'CoGS' system'. This enables individuals to set goals and enables reflection on the impact of the involvement with counselling and information as well as maintaining the focus on what is important to the individual.

Counsellors supporting individuals are skilled at maintaining this focus to ensure the best outcomes for the individual and utilise the tool as a means of managing the focus of discussions, activity and signposting.

The Kooth service has been delivering outcomes for tens of thousands of children and young people over the past 12 years, and this model is being developed in the new Qwell offering.

## WHAT IS IT?

Sundhed.dk is run across the entire Danish healthcare as a public, internet based portal aimed at empowering citizens to keep well.

Every Danish citizen has their own personal page with their preferences, goals and care needs. On this page they can also find all their up to date health care information with treatments and diagnoses. The portal is designed around supporting people to take control of their own health and care: users can book appointments, renew prescription drugs, monitor their drug compliance and review waiting lists for operations as well as the quality of hospitals. Citizens can also register as organ donors and access over 3000 handbooks and articles on disease and treatment.

Sundhed.dk not only connects clinicians and citizens but enables citizens to connect with each other and discuss an illness or treatment treatments – this has proved invaluable for people with chronic diseases.

## IMPACT AND SCALE

80% of the health care professionals surveyed felt that direct citizen access promoted more one-on-one discussions about problems, increased co-responsibility, improved self-care and higher patient satisfaction. Sundhed.dk have estimated savings of €12 million annually through automation of appointment bookings and handling prescriptions. The portal is also linked to a 40% year on year increase in people registering as organ donors.



## WHAT IS IT?

Headspace, run by the National Youth Mental Health Foundation, provides early intervention mental health services to 12-25 year olds and assistance in promoting young peoples' wellbeing. This spans across 4 key areas: mental health, physical health, work and study support and alcohol and other drug services.

1 in 4 young people have experienced a mental disorder in the previous 12 months, a higher prevalence than all other age groups. Headspace centres across Australia provide face-to-face information, support and services to young people, their families and their friends.

Information and services can also be accessed through their website, and online counselling service - eheadspace, and postvention suicide support program Headspace School Support.

Headspace centre users can be referred by their GP or come of their own volition. All services are free. Centre staff can refer patients onto a specialist if need be, this could be a GP, psychologist, social worker, alcohol and drug worker, counsellor, vocational worker or youth worker. A number of centres also have Aboriginal and Torres Strait Islander health workers.

## IMPACT AND SCALE

There are 93 centres and 2 funded outposts.

Over 1.5 million services have been provided to young people through headspace centres and via online and phone counselling service eheadspace.

255, 000 young people have benefited from these services.

# VIRTUAL MENTAL REHAB



## WHAT IS IT?

Virtual Mental Rehab uses wearable Virtual Reality headsets to provide therapy for people with mental health problems.

A pharmacy dispensing machine allows people to talk to a pharmacist via a video call at a public machine, and get prescribed the medicine they need. The medicine can then be collected directly from the machine. Once dispensed, the machine keeps a record of which medicine you've been given, and on which Virtual Reality headsets.

This information is then shared with your local pharmacist and doctor. Each machine can hold up to 700 medicines or 2500 packets and can easily be set up at remote locations. The machine's are intended to be seen as an addition to the services you get from a local pharmacist, and not a replacement.

A new therapy called 'Virtual Iraq' (Bravemind) has been developed to help war veterans suffering from post - traumatic stress disorder PTSD. 'Virtual Iraq' recreates traumatic real-life scenarios which patients have suffered during their time in the war, as a way to help them through that experience and overcome it.

## OUTCOMES

Depending on the patient's issues, the Virtual Reality headset can assist them in different ways. For patients struggling with addiction, Virtual Reality immerses them in situations which have bad associations for them (a pub, near cigarettes), as a way to allow them to develop and master a resistance to triggers. Studies show the Virtual Reality therapy is significantly reducing PTSD symptoms.

## WHAT IS IT?

Soma Analytics is an evidence-based mobile programme to increase employee emotional Resilience. It combines mobile technology with proven psychological methods from the fields of occupational & positive psychology to provide evidence-based interventions.

The 21 day programme is designed to increase mental resilience and reduce the risk of depression, anxiety & stress. It aims to be easy to use and engaging. Soma focuses on small and attainable changes in lifestyle to maximise engagement. A behaviour change is attained through:

- Personalisation: interventions are tailored to the individual needs.
- Gamification: a personal “Energy Budget” quantifies personal resources.
- Closing the feedback loop: data is fed back to reinforce a healthy behaviour change

The mental resilience programme builds on two essential pillars:

1. Participants measure their well-being through their smartphone. The SOMA app assists in assessing sleep quality and emotions in speech.
2. Based on these measurements participants receive personalised tips and feedback how to increase mental resilience. Tips are evidence-based and concern sleep hygiene, happiness, mindfulness and personal productivity.

An HR manager can deploy the programme to every employee in their organisation quickly. Other than a smartphone there are no additional devices needed.

## OUTCOMES

Phase 1 of the project validated the clinical and commercial feasibility of a smartphone based solution that is able to detect and manage stress, delivering:

- 14% reduction in perceived stress
- 13% improvement of sleep quality
- 11% overall well-being improvement
- €400,000 estimated savings (extrapolated) per year for 2000 employees

## WHAT IS IT?

Silvercloud create programmes that effectively help people to manage the way they think, act and feel. Programmes are informed by clinical expertise and over 10 years of research and testing. The solution comprises a library of interactive and engaging programmes accessed via a flexible, user-friendly delivery platform.

The content is designed to be motivational, easy to use, and interactive with relevance to the unique requirements of the service user.

Courses span across a range of mental health issues such as anxiety, depression, stress, eating issues, long term health conditions such as COPD, diabetes, and chronic pain.

One example of a course they offer, is Space from Anxiety. Built in conjunction with leading clinical and subject matter experts, it is an easy to follow programme that includes a range of tools, activities and education delivered in a safe and confidential space. It is designed to help people manage their anxiety, challenge anxious thoughts and feel better.

Users complete the course in their own, working through all the modules. Tools and modules include, an anxiety monitor chart, coping thoughts tool, a worry time activity and modules for managing anxiety and building resilience. The course aims to equip people with the skills and strategies to tackle anxiety now and in the future.

## OUTCOMES

Silvercloud say that through their platform, Clinicians can engage with 6 times more service users than in a face-to-face environment. In clinical trials of Silvercloud, there was a 3 fold increase in user engagement than in competitor programmes, driving higher recovery rates.

## WHAT IS IT?

For the people that we work with, the increasing need to be online and digitally skilled is a huge barrier, preventing them from accessing employment, benefits, medical advice and other areas of need that many of us take for granted. To address this need, Thames Reach started the i-Reach programme.

Weekly, informal IT sessions are run across a range of pan-London sites and are tailored to clients' needs. Sessions are run both in group settings and on a 1-1 basis which helps to address a range of barriers and learning needs.

Often, we find resistance to learning digital skills so a range of creative approaches are used to draw people in – YouTube, online shopping, social media through to paying bills, registering for Universal Credit and job search are just some of the ways we have started people on their journey to digital independence.

## OUTCOMES

The aim is that participants see increases in their confidence, social skills, communication and timekeeping skills through undertaking the course.

- 4 people have moved into employment
- 20 people have started volunteering placements
- 16 people have moved onto accredited Digital Skills training
- 5 people have gained EL3 qualification and a further 8 are working towards EL3 qualification
- 40+ people have accessed other training/support

# HEALTH FOUNDRY



## WHAT IS IT?

Health Foundry aims to improve health and wellbeing by bringing together a wide range of people, start-ups and organisations and supporting them to create scalable digital health solutions.

The heart of Health Foundry is their architect designed space at Waterloo, opposite St Thomas' Hospital. The space is funded by Guy's and St Thomas' Charity and provides a supportive base for digital health. Members have access to a range of members-only and open events, a growing community of peers within the health and digital tech sectors, as well as access to a team who will facilitate connections with people both in and outside of the NHS.

The idea behind it is that great digital health solutions are created by bringing together a diverse range of people, who together can spot the opportunities for digital innovation, and who understand the challenges of delivering real health care.

Health Foundry creates the opportunity for people to come together and work on projects through our Open Solutions Lab of programmes and events.

Have an idea for a health hack, a camp, an event or a summer school? Get in touch and see how we might collaborate!

## OUTCOMES

Members based at Health Foundry currently include, Mental Snapp, The Behavioural Team, Veloscient, DrDoctor, AgeUK Lambeth, Men's Health Forum and others.



## WHAT IS IT?

IESO provide one-to-one behavioral health therapy in real-time, online.

Cognitive Behavioral Therapy (CBT) is delivered online for people with common anxiety disorders or depression. Rather than video chatting or talking, the CBT is delivered through written (typed) conversation. Patients 'chat to' a qualified therapist in a secure online therapy room. Each therapist is supported by a clinical team.

The organisation believes that their type of therapy removes the pressure of speaking to somebody in person and can make it easier for people to open up.

Patients are able to read through their transcripts after the sessions, helping them to remember the tools and tips given by their therapist. They also say that some people may be able to learn and adapt behaviors faster by reading and writing, rather than speaking and listening.

IESO say their service is especially suitable for people who feel affected by stigma or taboo about mental health; those who need flexible timings; people living in remote places and people who have mobility problems.

## OUTCOMES

Their method has been proven to be as effective as face-to-face therapy.

IESO suggest that this form of technology-enabled therapy, and the use of written conversation, both help to disinhibit patients, making them more likely to disclose personal information openly and candidly.

There is also some evidence to suggest that typing can lead to more embedded learning than face-to-face CBT due to the method of learning by reading and writing, rather than speaking and listening.

# MOSAIC CLUBHOUSE



## WHAT IS IT?

Mosaic Clubhouse is a mental health support service in Lambeth. Members (i.e. service users) and staff members work in partnership to co-run the service together.

Digital technology is used in the process. This can be inputting key service information onto the database, creating promotional material for upcoming events or updating our social media and e-newsletter.

Mosaic Clubhouse also supports people to use digital technology for their daily lives.

Members may support their peers to set up an email account, apply for jobs and much more. This support is co-delivered together by members and staff ("side by side") in both structured sessions and on a drop-in basis, such as during our coding workshop and computer drop-in.

## OUTCOMES

Mosaic Clubhouse provides real office based reasons to develop digital skills.

The tasks are accessible by members at any level of confidence and competency.

This prepares members for the real world of work and education.



## WHAT IS IT?

The Lambeth Living Well Network (LWN) was formed in 2013 to provide earlier support to people with common mental health needs and to improve people's wellbeing.

The LWN Hub is the 'front door' to mental health support in Lambeth. By removing eligibility criteria and introducing 'self introduction', the Hub has a conversation with people about their assets and needs and supports them to achieve their outcomes using the wider network.

The Hub offers a wider variety of support and integrates services from clinicians, social workers, peers and support workers in different voluntary sector organisations, recognising not just symptoms of mental health needs but also addressing wider issues such finances, social isolation and relationships.

It has already achieved fantastic results. People who would otherwise have not been eligible for services or had to wait a long time to access them, have accessed early support and been directed to services appropriate to them and of their choice.

## OUTCOMES

On average 400 people have been supported by LLW Network per month – many of whom would not have been accepted by secondary care in the past so would not have received any support at all.

There has been a 43% reduction in referrals to secondary care. As introductions to the Lambeth Living Well Network have increased, referrals to secondary care at SLaM have decreased.

Support was previously provided within one month. Now support is provided to people within a week.

# INTEGRATED PERSONALISED SUPPORT ALLIANCE (IPSA)



## WHAT IS IT?

In April 2015 five organisations entered into an alliance to provide a radically new service for people requiring mental health rehabilitation services in Lambeth.

The Integrated Personalised Support Alliance (IPSA) was set up to help people with serious mental illness to live in more independent accommodation within the community.

Many people supported by IPSA have benefited from gaining much more control and independence in their day to day lives.

## OUTCOMES

In its first year, IPSA has helped 65 out of 200 people move into new accommodation and away from long term rehabilitation centres. In addition, others have been diverted from entering high cost placements in the first place, instead receiving personalised alternative support.

