



HOW TO STRENGTHEN PREVENTION AND TREATMENT IN MENTAL HEALTH

In February 2020, scientists, clinicians, patients and industry representatives met in Stockholm to discuss how governments, education systems, and new technologies can help treat and prevent mental health problems. The roundtable was the latest in the Science|Business Healthy Measures series.

Since November 2016, Science|Business and a number of its institutional members have been organising conferences and news coverage across Europe on how better use of health data can improve outcomes for patients, and increase the effectiveness of European health systems.

This report summarises the debates at a Science|Business high level roundtable in Stockholm, Sweden on 25 February, 2020.

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- Aalto University
- Amgen
- Barcelona Supercomputing Center
- Business Finland
- ESADE
- Hospital Sant Joan de Déu
- Novartis
- NTNU – Norwegian University of Science and Technology
- Politecnico di Milano
- Simmons & Simmons LLP
- Sorbonne University
- University of Eastern Finland
- Warwick Medical School

In addition, representatives of the European Commission's Directorate-General for Health & Food Safety, and of the Organisation for Economic Cooperation and Development, serve as observers on the group's steering committee.

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SWEDEN'S STRATEGY FOR MENTAL HEALTH



Mads Trier-Blom, Patient & Patient Advocate

Imagine the most psychologically stable person you know, strapped to a bed and isolated. “How long do you think he will stay mentally healthy?” Mads Trier-Blom, a patient advocate with bipolar disorder, asked fellow participants at the Healthy Measures roundtable discussion in Stockholm. “Actually, this has been a treatment for years,” he said.

Trier-Blom was one of the experts that came together at the Science|Business roundtable discussion at Stockholm’s Karolinska Institutet in February to identify what can be learnt from how mental health policy is evolving in Sweden and other European countries.

In the 1970s, Sweden had some 37,000 people institutionalised for mental illness, noted Birgitta Sacrédeus, chair of the interregional health and wellbeing group in the European Committee of the Regions. But that number is down to 5,000 today, in a country that has seen its population grow by a quarter since 1970.

In Sweden, at least, the focus is on helping potential patients stay healthy and keeping mental health on the overall healthcare agenda.



Birgitta Sacrédeus, Chairwoman, Interregional Group on Health and Wellbeing, European Committee of the Regions

This year marks the culmination of Sweden’s 2016-2020 strategy for mental health, which prioritises early actions to prevent mental health problems from becoming serious, and encouraging people to get help from the mental health services sooner.

Describing his own experience of bipolar disorder, Trier-Blom said he has learnt how to walk a mental tightrope and thereby stay healthy. “I had to find a balance in life.” Though he could fall one way or the other – into mania or depression – “the art of tightrope walking is you can prevent falling down, so you can feel, ‘oh, I’m going to the side, so I have to adjust.’”

Participants discussed how potential patients could be helped to make such adjustments early, before they fall into full-blown psychiatric disorders in need of treatment: by introducing mental health education into schools, by encouraging firms to do more to support stressed-out employees, and by harnessing new technologies to identify and treat problems faster.

KEEP MENTAL HEALTH ON THE POLITICAL AGENDA

Getting Swedish policymakers to pay sufficient attention to mental health used to be a challenge, but not anymore. A few weeks before the roundtable, five different committees of the Swedish parliament met collectively for the first time to discuss the subject. "I think this bodes well for the future of mental health in Sweden," said Ole Petter Ottersen, president of Karolinska Institutet, for whom cross-sectoral dialogue and thinking are essential to good policy making. And with 21 separate agencies involved across the Swedish mental health spectrum, the need for coordination and cooperation is self-evident.

Mental health is now central to the political agenda, added Kerstin Evelius, national coordinator for mental health at Sweden's Ministry of Social Affairs. The problem is keeping it there, because "when you have a problem coming up like this, you start looking for a quick fix." But avoiding quick fixes doesn't mean not taking action. "The cost of mental health illnesses and problems and diseases is today five per cent of GDP. It's costly, so we need to do something about it," said Evelius.

In the Stockholm area, the total cost to employers of short-term absences due to mental illness is between 60 billion and 70 billion Swedish kronor (€5.6 billion to €6.5 billion) per year, which is about as much as the region's entire healthcare budget, estimated Susanne Nordling, president of psychiatry and mental health at Stockholm's regional government. Those figures don't even account for the cost of long-term sick leave.



Top to bottom: Ole Petter Ottersen, President, Karolinska Institutet; **Kerstin Evelius**, Special Investigator & National Coordinator, Development in Mental Health; **Susanne Nordling**, President, Psychiatry & Mental Health, Region Stockholm

THE VALUE OF EARLY INTERVENTIONS



One of the ways Sweden has tried to bring down these costs is to make it easier for people to get help with mental health problems early, before they develop into serious psychological disorders that are much more difficult to deal with.

“About 70 per cent of those who turn towards primary care don’t have a diagnosis,” noted Nordling. “But if we don’t do anything with them, the healthcare system will be overwhelmed, because it just takes a couple of months before they could go into a real disease.”

That statistic could be regarded as a sign of progress: while some serious cases no doubt still go undiagnosed, the figure could suggest many Swedes are seeking help before their problems get bad enough for them to be diagnosed as mentally ill. “It’s good that a lot of people in Sweden ask for help, and I think that’s because of the stigma reduction,” said Anders Wahlberg, president of the Swedish Psychological Association.

Sacrédeus of the European Committee of the Regions also recognised that efforts to reduce the stigma have been successful. Having a mental illness in Sweden today is, socially, “like having diabetes, almost” she said. “We’re not afraid to talk about it any longer, it’s not such a shame thing,” though she stressed the stigma had not gone away completely.



Top to bottom: Anders Wahlberg, President, Swedish Psychological Association; **Birgitta Sacrédeus**, Chairwoman, Interregional Group on Health and Wellbeing, European Committee of the Regions

HELP YOUNG PEOPLE PURSUE MENTAL HEALTH

While participants agreed early intervention is important, how to do it is a much harder question. The roundtable discussed the education system, which could play a role in addressing young people's mental health issues, but also in teaching them how to handle problems they may encounter as adults. One indicator of effective mental health prevention would be every child finishing school, suggested Evelius of Sweden's Ministry of Social Affairs.

Together with Anders Wahlberg, president of the Swedish Psychological Association, Evelius described a survey of young Swedes that asked what they wanted from society when it came to mental health. "What they said was, we want adults that are present in our lives," said Evelius. "They were asking, 'help us keep our health.'" Wahlberg added: "They also wanted psychological health in their education in primary school, to know more about it – they had physical health, but they didn't have psychological health."

On the other hand, talking about mental health may be easier for the young than for the old, said Jimmie Trevett, board member at Sweden's National Association for Social and Mental Health. "Young people are saying they feel worse than they did for 10, 20 years," he said. "It's not very peculiar to say you are not feeling good if you are 25 years old," Trevett added, noting that older people generally find it much harder to admit to such problems.

However, Karin Schulz, secretary general of the mental health charity Mind, warned recently there has been a large increase in the number of young people taking antidepressants. "That's not the right medicine for all kinds of problems within mental health," she said.



From left to right: Karin Schulz, Secretary General, Mind; **Jimmie Trevett**, Former Chairman; Member of the Board, National Association for Social and Mental Health (RSMH); **Maria Fagerquist**, Deputy Director, Swedish Association of the Pharmaceutical Industry (LIF)

Even in an affluent country, such as Sweden, poverty and geography can play a major role in determining the quality of healthcare available to young people, added Maria Fagerquist, deputy director of the Swedish Association of the Pharmaceutical Industry. "We also need to manage better the inequalities that we see in mental healthcare. If you look specifically at the adolescents and children in the region of Stockholm, you can basically go from south to north, following the red tube [metro] line, to see very drastic differences in outcomes," she said. Between pre-school, regular school, rehabilitation and habilitation programmes, there are "risks everywhere of children falling between the chairs".

EMPLOYERS NEED TO BE FLEXIBLE



From left to right and top to bottom: Tom van Daele, Head of Expertise Unit, Psychology, Technology & Society, Thomas More University of Applied Sciences; Member, eMen; **Fanni-Laura Mäntylä**, Chairperson, Commission on Mental Health and Healthy Workforce, European Health Parliament; **Elke Grooten**, Head of EU Relations, Novartis; **Tuure Parkkinen**, Vice President of Partnerships, Europe, Meru Health

Furthermore, the group agreed that mental health education needs to be available to people throughout their lives. “We don’t only have to educate children, we also have to educate our professional workforce and our policymakers as well,” said Tom van Daele, head of expertise at the unit for psychology, technology and society at Thomas More University in Belgium. “We need to make them aware of the fact there are decent interventions and tools out there,” particularly new technological tools, he said.

A big problem for adults who are struggling is the pressures of work and family life can mean they don’t have time to get help. “If it’s difficult to take time to go to the psychologist, it’s disturbing,” noted Trier-Blom.

Fanni-Laura Mäntylä, chair of the European Health Parliament’s committee on mental health and healthy workforce, said there should be faster access to treatment for problems that are still relatively mild. She said that without a diagnosis, people should be able to access a light form of psychological counselling, “not to dig deep into your childhood, but to get some mental health skills to take care of yourself.”

But employers may need to be more flexible too. People with serious problems can take sick leave – but besides leaving things until quite late, that solution also takes them out of the workplace altogether, which may not be good for them. Mäntylä said people with mental health problems “would actually benefit from work, they would like to do work they would like to contribute,” but for financial reasons, “it is very hard – at least in Finland – to work part time.”

“If you’re really in a bad condition, then definitely you need time off work,” added Tuure Parkkinen, vice president of partnerships at Meru Health, a Finland-and-California-based digital clinic treating depression, anxiety, and burnout. “But in many cases, work is also curing,” he said, noting there is therapeutic value in “being able to maintain that activity.”

Some employers are adapting. Elke Grooten, head of EU relations at pharmaceutical firm Novartis, said a “changing mentality” around mental health at her company meant that “employees now have access to free counselling – and for someone like me, it helped a lot,” she said. “You trust that the counsellors that the company has chosen are good.”

FIGURE OUT WHICH INVESTMENTS ARE PAYING OFF

In the mental health sector, as in many other walks of life, there can be a tendency to dwell too much on what's gone well, and overlook what hasn't. "We've been very focused on good examples for years," Evelius warned, "what we need to do is share our experience in mistakes to make it better the next time."

For example, "we have spent a lot of money – around 13 billion kroner – in the past 20 years, and don't know what kind of results we get," because "we don't have a robust set of indicators," said Evelius. "We need to be very focused on outcomes instead of actions."

Despite this spending, Wahlberg of the Swedish Psychological Association said people can't always get the care they need when they ask for it. "It's a lack of personnel, and, still, a lack of knowledge of what kind of treatment is best suited to each diagnosis."

Norway exhibits the same paradox, said Christine Lingjærde, chair of the board of directors for the Norwegian Association for Mental Health Families. "Recently, the OECD has criticised Norway for spending too much money on welfare and health," she said. "I saw this article and I thought whoa, is that true? Where's the money gone?"

The money, she explained, had been spent on "high research, complex projects, and very complicated committees trying to find some very complicated solutions." As for the products of these complicated committees, "very little has been implemented."



Christine Lingjærde, Chair of the Board of Directors, Norwegian Association for Mental Health Families



Peter Friberg, Co-founder and Director, Swedish Institute for Global Health Transformation (SIGHT)

One approach to the problem, said Sacrédeus, is “value-based healthcare,” a method also tried in other European countries, such as The Netherlands [1]. Value-based healthcare evaluates health systems according to costs and outcomes. Sacrédeus said to be cost effective is “an ethical principle,” because “we’re dealing with taxpayers’ money here.”

Value-based healthcare “was extremely popular in Sweden for a number of years,” but it ultimately had to be abandoned, because focusing on costs and outcomes meant ethics were often overlooked, said Peter Friberg, director and co-founder of the Swedish Institute for Global Health Transformation. “It’s perfectly fine to have value-based healthcare when you have a replacement hip or knee or something very simple, but we have to deal with very complex problems in mental health,” he added.

[1] *The Dutch push to reframe healthcare around patients, Science|Business, 10 July 2019*
<https://sciencebusiness.net/report/dutch-push-reframe-healthcare-around-patients>

It can be difficult to decide what outcomes to measure and how, especially in mental health. For example, high rates of readmission could be a sign of inadequate care, but could also suggest psychiatric patients are becoming more proactive in managing their problems.

For Lise Bergman Nordgren, coordinator of Sweden’s national quality registers in psychiatry, smarter use of public data would be an important first step. For example, making links between national registries on life spans, quality of life and psychiatric disorders could improve treatment, support integrated learning, underpin new research and inform better management of programmes and conditions. Ultimately, “purpose must guide what is measured, so we can co-create better care with people,” Bergman Nordgren added.



Lise Bergman Nordgren, Coordinator, Swedish National Quality Registries in Psychiatry; Program Director, Psychologist Program, Linköping University

HARNESSING NEW TECH CAN HELP

The group also discussed ways in which new technologies and digital solutions could help provide easier, faster and cheaper access to tools that can help people deal with problems while they're still small, and to help identify when they could seek professional help.

Nordling from Stockholm's regional government said the Research Institutes of Sweden (RISE) is working on a digital platform called Coze that helps people to manage minor problems themselves, while also providing a triage service that connects patients with real doctors and helps them set up appointments when needed. "According to RISE there are 83 keywords that, if they come up in a chat, then you should by triage be turned towards a physical person," added Nordling.

Madeline Balaam, associate professor of media technology and interaction design at the KTH Royal Institute of Technology in Stockholm, described her work on a platform that helps people with mental health problems talk to each other and to mental health professionals. The platform is "a bit like a personal radio chat show with people in your local area, who you don't know, you've never met. But you can talk with them, ask them some questions, and then also hear from a health expert," she said.

Some generic digital tools can also be useful in preventing psychological problems. Trier-Blom said his smartwatch can track how much sleep he's getting, which is a common feature among such devices nowadays. "For me, sleep is the best way to deal with stress," he said. Similarly, Mäntylä of the European Health Parliament said she uses an app to monitor her blood sugar levels, which is routine in the management of diabetes, noting fluctuations in blood sugar can bring on feelings of depression, anxiety, or mood swings.



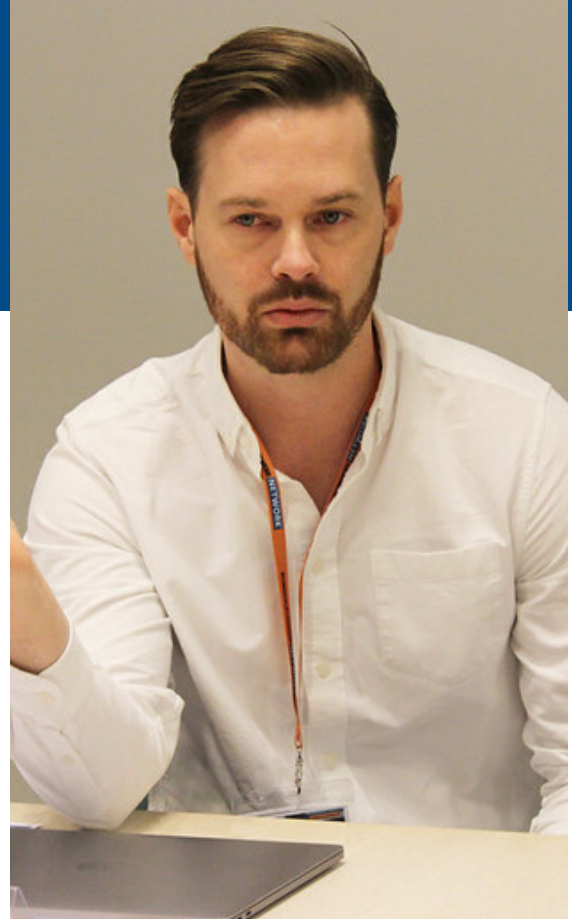
Madeline Balaam, Associate Professor, Media Technology & Interaction Design, KTH Royal Institute of Technology

Some new technologies could also support clinical care. Niclas Wijkström is CEO of healthtech firm Mimerse, which in partnership with Stockholm University has developed a virtual reality (VR) system that helps psychologists treat phobias. "If you have social phobia, for example, going with a psychologist out to a square, or going to a restaurant or coffee shop – that's quite difficult for a psychologist to do," he said. "Whereas this technology has advanced so it's good enough to recreate whatever scenario."

Wijkström said it had taken decades of work for VR to reach a stage where it's appropriate for clinical use. "In the mid-90s, these headsets were back then very expensive – over \$100,000 (€89,000) and they were pretty bad, so everybody who put on the headset got nausea immediately," he said, whereas today's headsets cost as little as \$199 (€178).

Daniel Månsson, CEO of Flow Neuroscience, said his company has created a device that uses low-voltage electricity to assist treatment of depression. The concept combines “brain stimulation through this headset with behavioural therapy.” The device “sends in a weak electric current on the left side of the head” of about two milliamps, which is “400 times weaker than ECT,” or electroconvulsive therapy, a shock treatment sometimes used in extreme and hard-to-treat cases of depression, Månsson explained. The low voltage is sufficient to “get the neurons on the left side of the head to get a little bit more active,” and its effects are “roughly equivalent to antidepressant medication,” he added.

That said, even when devices are certified for clinical use, getting them into the health service takes a long time, so developers also have to target non-clinical settings to stay afloat, said Wijkström. As a small business, “usually you have between six and 18 months of capital, but the sales lead time to a hospital can be at least three years,” he explained. “So if we were to focus only on selling to hospitals we would go bankrupt without doubt.” That’s why Mimerse also targets businesses, such as by helping people who are afraid of public speaking.



From top to bottom: Niclas Wijkström, Co-founder and CEO, Mimerse; **Daniel Månsson**, CEO and Founder, Flow Neuroscience

BOTH TECH-KNOW HOW AND TRUST ARE REQUIRED



Simply getting tools into the market isn't enough: patients and clinicians alike need to understand how to make proper use of them. "We do tend to think that people are quite well skilled in using these technologies, but all too often there still appears to be quite a big gap," said Van Daele of the Thomas More University in Belgium. And with only 1% of the global healthcare workforce specialised in mental health, versus the 25% of people who will be affected by mental or neurological disorders at some point in their lives [2], there aren't necessarily enough practitioners to train in the first place.

Trust is also an issue, and patient and mental health professionals need to know the difference between snake oil and something that works. "It's still somewhat the wild west out there," Van Daele said. "You need to be able to assess yourself if an application or a tool is feasible to offer within your services." Belgium has introduced a three-tier certification system for medical mobile apps, though currently no app had reached the top tier, he added.

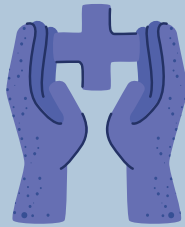
[2] Source: *The World Health Organization*

Wijkström of Mimerse agreed that quality control is important, and said patients should be cautious: "People should be sceptical," he said. "Not worried, but sceptical. In the UK, 80 per cent of applications that are recommended by doctors don't have any evidence whatsoever. And that is a problem. If you have very long waiting times and mental health stigma, people are going to search Google for whatever treatments they can find. There's an incredibly large self-help market where pseudoscience is very common."

SUMMARY OF THE SUGGESTIONS FROM THE GROUP

KEEP MENTAL HEALTH ON THE POLITICAL AGENDA

- The total cost to employers of absences due to mental illness is enormous.
- Policymakers should take action, but not pursue quick fixes.
- Cross-agency coordination and cooperation are required.



HELP YOUNG PEOPLE PURSUE MENTAL HEALTH

- Educate children on psychological health at primary school
- Reduce the inequalities in mental healthcare for children

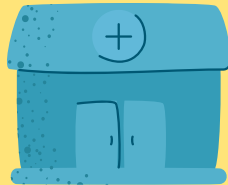


FIGURE OUT WHICH INVESTMENTS ARE PAYING OFF

- Analyse which interventions don't work, as well as what does.
- Focus on outcomes, as well as actions.



MAKE BETTER USE OF PUBLIC DATA

- Draw links between national registries on life spans, quality of life and psychiatric disorders to improve treatment, support integrated learning, underpin new research and inform better management of programmes and conditions.



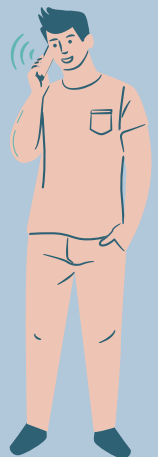
THE VALUE OF EARLY INTERVENTIONS

- Make it easier for people to get help before they develop serious psychological disorders that are difficult to deal with.
- Continue efforts to reduce the stigma around mental health issues.



EMPLOYERS NEED TO BE FLEXIBLE

- Make mental health education available to people throughout their lives.
- Provide employees with access to free counselling.
- Ensure employees don't face consequences for seeking mental health treatment.
- Help people with mental health problems to work part-time, if necessary.



HARNESSING NEW TECH CAN HELP

- New technologies and digital solutions can help people deal with problems while they're still small, and to help identify when they should seek professional help.
- New virtual reality systems could help psychologists treat phobias.
- Devices that generate low-voltage electricity could assist in the treatment of depression.



BOTH TECH KNOW-HOW AND TRUST ARE REQUIRED

- Educate patients and clinicians on how to make proper use of new digital tools.
- Introduce a certification system for mental health-oriented mobile apps and digital solutions to help build trust.



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