

Digital Health is Changing Mental Health Care

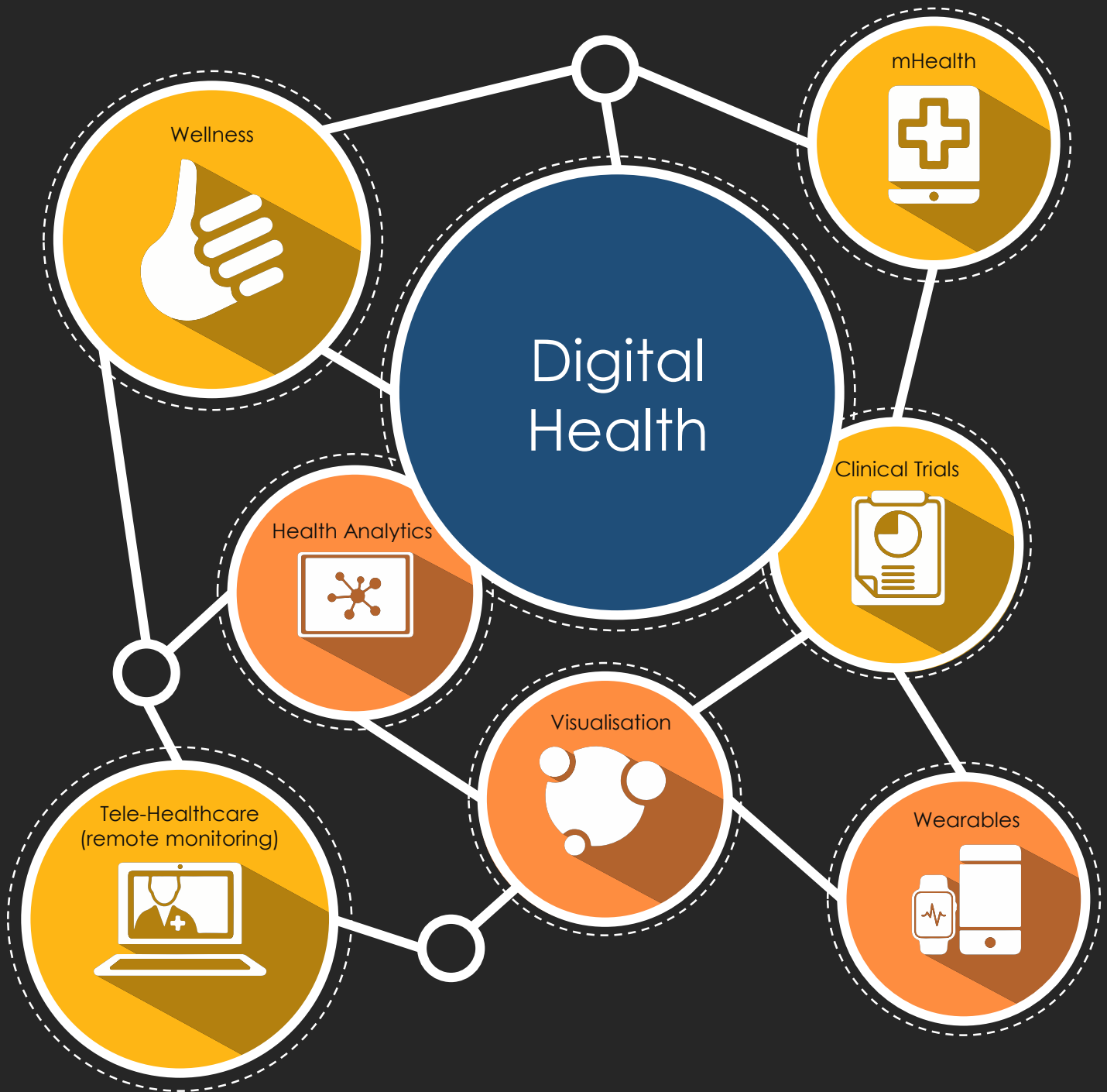


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DIGITAL HEALTH IS CHANGING MENTAL HEALTH CARE

It is estimated that over 40 million Americans suffer from some form of mental illness. Further, over 20% of those seeking treatment are unable to receive it due to lack of providers, financial considerations, or other barriers. It is estimated that the cost of mental health care is equivalent to the cost of cancer care. Depression alone accounts for one-third of this cost.

According to the American Psychiatric Association, between \$26.3 and \$48.3 billion in savings could be realized in annual healthcare costs by integrating early detection and preventative care options for mental health conditions.

As we continue to see advances in Digital Health solutions for care options across the healthcare spectrum, Big Data, and AI are poised to revolutionize how providers approach mental health care. From early detection to intervention strategies to ongoing support, mental health specialists now have a variety of digital tools to help treat and support their patients. This translates into greater mental health care outcomes, reduced sick leave and savings to patients, employers, and payers.



CHALLENGES FACING MENTAL HEALTH CARE

Early Intervention

There are many challenges preventing early intervention in mental health cases. Early symptoms are either ignored or misunderstood, so the patient may not seek out treatment.

Misunderstanding and stigma surrounding mental ill health are widespread. Despite the existence of effective treatments, people with mental disorders are perceived as difficult, not intelligent, or incapable of making decisions. This stigma can lead to abuse, rejection and thus patients may not seek out treatment.

The lack of options or failure to understand the underlying cause may cause many patients to self-medicate. Drugs and alcohols may temporarily relieve some of the symptoms associated with mental illness such as stress or depression. Mental disorders increase the co-morbidity factor of other diseases such as HIV, cardiovascular disease, and diabetes.

Misdiagnosis

A considerable challenge in mental health care is that many conditions present similar indicators. Since there is often no "test" for mental illness, doctors must make a best guess diagnosis based on how the patient is currently presenting or relying on the patient's self-reporting of what they are experiencing, which may be clouded by the underlying

cause. Unfortunately, this results in high rates of misdiagnosis with patients medicated and treated for the wrong illness.

It is not uncommon for patients to receive a conflicting diagnosis from different providers, or for it to take several years to get the right diagnosis. Furthermore, depression often co-occurs with other illnesses and medical conditions, which become the primary focus of treatment. These challenges to finding the true underlying illness often exacerbate the symptoms causing the patient to require more acute care.

Lack of Services

Even when primary care physicians are able to diagnose the mental health condition, nearly two-thirds report that there are inadequate outpatient mental health services available - a rate that was at least twice as high as that for other services. In low and middle-income areas, there is a dramatic shortage of psychiatrists, psychiatric nurses, psychologists and social workers. Patients inability to access to treatment options remains a primary barrier to receiving mental health care.

CREATING DIGITAL OPPORTUNITIES FOR IMPROVED CARE

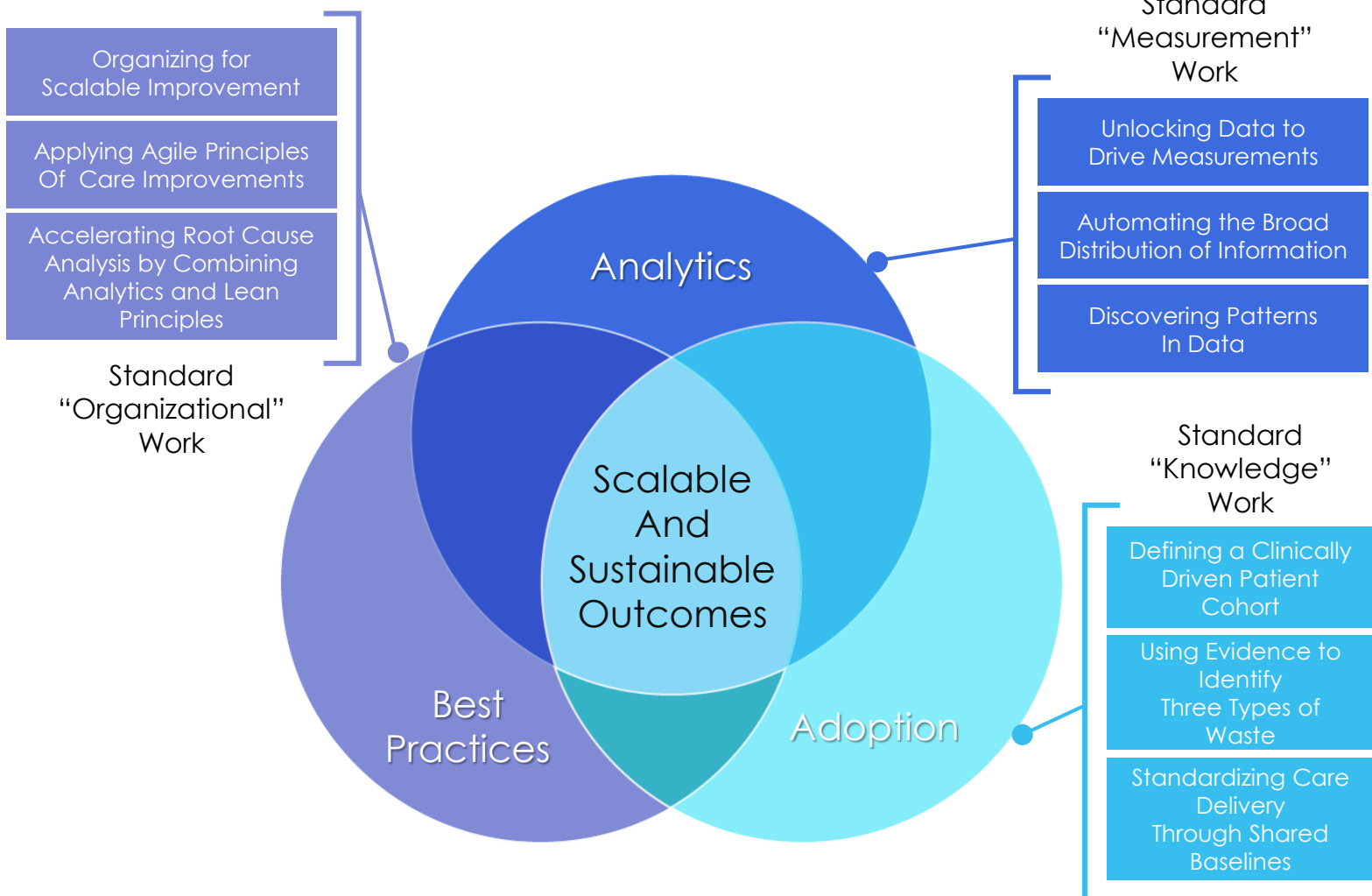
Early indicators developed through health data analysis allows providers to more effectively identify and diagnose mental health issues. The early identification offers greater insights into disease progression. These early trigger signals coupled with population health analytics allow healthcare providers to address personal knowledge gaps in order to explore a wider range of treatment options.

One challenge often faced by drug developers is the lack of qualified patients available for clinical studies. By identifying patients most likely to benefit from the trials, researchers will be able to conduct larger trials resulting in better

outcomes. With the average the cost of developing a prescription drug estimated at \$2.6 billion, it is essential that researchers have an ongoing pool of patients for clinical trials.

Advances in drug discovery obviously lead to greater options for providers and patients to consider when developing care options. Early intervention can prevent or prolong disease advancement. Patients stay healthier longer, providers have more options and payers realize benefits in the form of cost savings. AI and data insights can offer insights into underlying causes of mental health causes and offer researchers better qualified candidates for clinical trials.

Three Systems of Improved Care Delivery



DIGITAL TOOLS UNLOCK DISCOVERY

Healthcare organizations use analytics tools and machine learning to uncover variables and patterns that offer predictive insights into mental health conditions and support more informed decision making. Combining real-time patient data with population health mental health data sets offers the provider better clinical and treatment insights. Using these insights can improve early diagnosis, expand service options combining treatments with telehealth solutions, and generate better care outcomes.

The sheer (and ever-growing) amount of scientific evidence available makes it nearly impossible for mental health providers to keep up with the latest trials and studies in their field. The National Institute of Health reports that only 20% of clinical care is based on research

evidence. Recent developments in Big Data analytics and Machine Learning can enhance the practice of evidence-based medicine by offering an efficient technological approach to EBM.

EBM is never intended to replace the clinical expertise of the doctor, but instead to close knowledge gaps and present the practitioner with the latest scientific research to consider when exploring treatment options. AI can fill knowledge gaps to ensure the patient and the care provider have considered all the available research when creating a treatment plan. Doctors and patients are on a continuous learning journey for the latest methodologies in diagnosis, prognosis, therapy and other clinical and healthcare issues.

CHANGING MENTAL HEALTH CARE

Big data analytics coupled with AI will allow mental health practitioners to finally achieve evidence-based practices in today's ever-growing data environment. EBM ensures that care providers integrate the most current clinical research evidence available along with their professional expertise and the patient's values when considering treatment option for care.

Digital health solutions are changing how providers deliver mental health care. From machine learning to identify early disease indicators to telehealth solutions to expand access to treatment, healthcare providers are realizing the benefits of technology. With a continued focus on value care, doctors are

intervening earlier to address mental health concerns to avoid acute care scenarios whenever possible.

Early intervention, apps for self-care and telemedicine solutions are offering greater access to mental health care. Healthier mental health options offer to combat stress in the workplace, expanding treatment options to remote areas previously underserved and reducing the need for in-person consultations. These benefits translate into greater mental health, reduced sick leave and savings to patients, employers, and payers.

About Scalable Health

Scalable Health is healthcare division of Scalable Digital focused on providing innovative products and solutions in healthcare and life sciences market.

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About Scalable Digital

Scalable Digital is a Data, Analytics & Digital Transformation Company focused on vertical specific innovative solutions. By providing next generation technology solutions and services, we help organizations to identify risks & opportunities, achieve sales and operational excellence to gain an innovative edge.

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