Navigating *The Playbook:* Digital Healthcare Edition
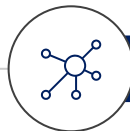
- Your user guide to *The Playbook:* **Digital Healthcare Edition**

- The **opportunities** digital health solutions bring to deliver high-value healthcare.

- **Industry definitions, classification** and **regulation** of digital health solutions.

Your micro-playbooks to digital health solutions

- AI/ML
- AR/VR/MR
- **Connected Sensor Technology**
- **Digital Therapeutics**
- **Electronic health records**
- **Mobile health applications**
- **Engagement and Social Media**
- **Virtual care**

PRO TIP

Throughout the slides you will see *'TL;DR'*. This is a common acronym for *'Too Long; Didn't Read.'*

We are acknowledging how busy you are and that a **small chunk of text is easier to digest** than a large portion of text on a slide.

Consumer engagement and social media

TL;DR

Consumer engagement and social media tools offer interventions with no "one-size-fits-all" approach

What are consumer **engagement and social media tools?**

▶ **Consumer engagement:** According to AHIMA, it refers to diverse set of activities that can include interacting with healthcare providers, seeking health information, maintaining a personal health record, and playing an active role in making decisions in regard to personal healthcare.

▶ **Social Media tools:** According to FDA, they are web-based tools that are used for computer-mediated communication. Social media may include but is not limited to: (1) blogs (eg, WordPress), (2) microblogs, (eg, twitter) (3) social networking (eg, Facebook), (4) professional networking (eg, LinkedIn, Sermo), (5) thematic networking (eg, 23andMe), (6) wikis (eg, Wikipedia), (7) mashups (eg, HealthMap), (8) collaborative filtering (eg, Digg), (9) media sharing (eg, YouTube, Slideshare), and others (eg, SecondLife).

Applications

| Lifestyle intervention | Diagnostic and prevention | Remote tracking and monitoring | Disease management and treatment | R&D and production optimization | Clinical decision support | Communication and engagement |

Source: DiMe-VHA The Playbook: Healthcare team analysis, https://bok.ahima.org/pdfview?oid=301404, ttps://www.fda.gov/drugs/development-approval-process-drugs/patient-focused-drug-development-glossary

3

The opportunity for consumer engagement tools and social media to improve outcomes

Opportunities to create value for patients, providers and healthcare systems

More consumer **prefer partnership with provider** instead of being passive receivers of information

Consumer **trust in reliability of information** is rising as more seek towards engaging

Expansion of consumer use of technology to monitor health and wellness of individuals

Easy-to-use solutions provides higher utilization and usability of the healthcare services

Readily scalable with low technical specs through patient-owned devices

Provide consumers with **public health information** about health concerns and options

Deliver high quality therapies **to underserved populations**

Case study: How social media platform partnered with digital provider to promote well-being solutions

The Challenge:

Mental health issues are a leading cause of workplace disability. And **Hootsuite, a leading social media management platform**, believes that it's not enough for employers to simply talk about healthy **well-being**; they need to provide solutions for it.

The Approach:

Headspace health, a leading provider of mental health and wellbeing solutions with science-backed **meditation and mindfulness solution** for the workplace, **partnered with Hootsuite for well-being initiative** to provide employers with **wellness solutions,** a toolkit of resources, and best practices for mental health like mindfulness tips, live meditation events, etc.

The Result:

Some positive outcomes for employer well-being includes **43.9% adoption rate** and **36.3% engagement rate.**
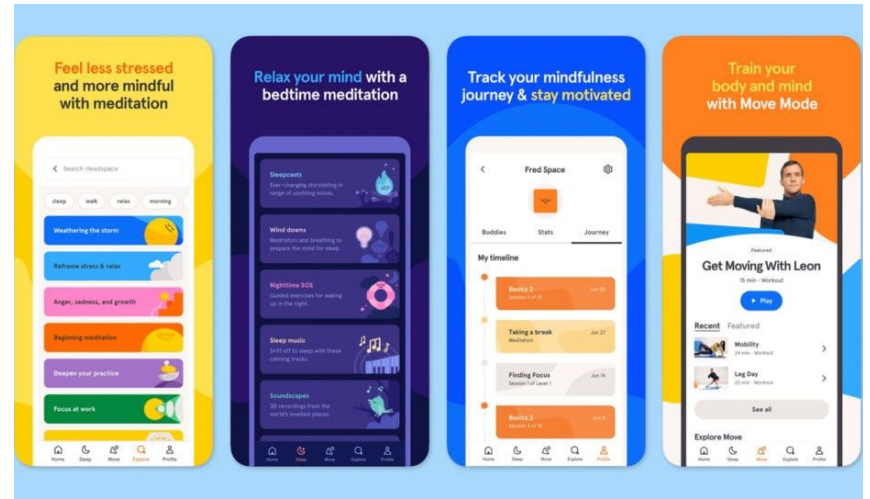
Case study: Engaging patients via Xhealth helps patients kick the tobacco habit

The Challenge:

Cigarette smoking remains the leading cause of preventable disease, disability, and death in the United States, accounting for more than 480,000 deaths every year, or about 1 in 5 deaths. Currently, 16 million Americans live with a smoking-related disease.

The Approach:

To increase engagement in their smoking cessation program, Duke leverages Xealth to automatically send an email that contains a video explaining the benefits of smoking cessation to all patients who were identified tobacco users in the EMR. If patients indicate they'd like more information, the clinical team is alerted and reaches out.
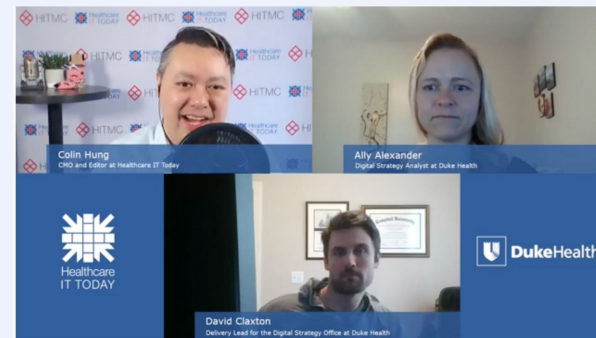
The Result:

Since implementing Xhealth in their program, Duke has seen a **20% increase** in the likelihood of a patient to **attend their first smoking cessation appointment**. The **success rate** of Duke's program is **30-35%**; 10x the unassisted success rate.

Collaboration with Duke Digital Strategy Office Key to Smoking Cessation Success

Case study: Leveraging social media for patient engagement and education

The Challenge:

Over the last 20 years, people across the world have **increased their usage of social media** with the **objective to become more informed,** particularly when it comes to learning more about their health and treatment options. This trend has resulted in a decrease of printed material being used to communicate health information, leaving healthcare organizations to seek alternate ways to reach patients and the community.
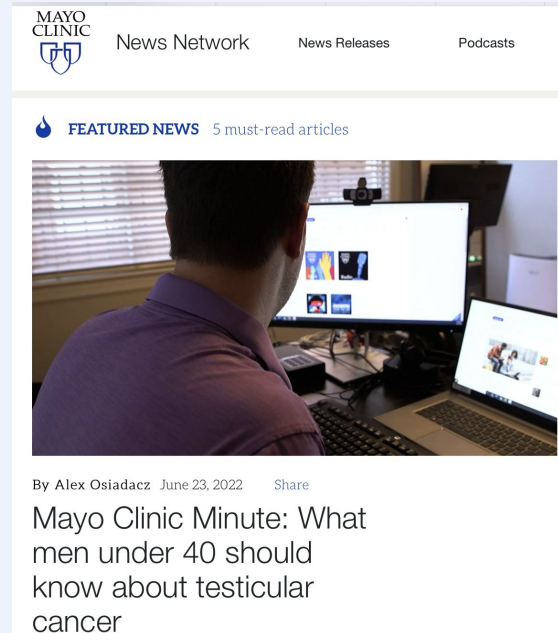
The Approach:

Recognizing that patients are turning to social media as a resource in healthcare, Mayo Clinic launched their Center for Social Media in 2010. Shortly after, they launched the Mayo Clinic News Network, which **provides access** to **tools, resources and guidance** for individuals and organizations seeking information about health and health care.

The Result:

To date, Mayo Clinic has approximately **1.2 million Facebook followers** and **2 million Twitter followers**. They utilize social media to help **create authentic connections with patients, post uplifting stories and inspiring articles**. During the Public Health Emergency, information was shared about COVID-1, outbreaks, and vaccinations sites.

MAYO CLINIC — News Network   News Releases   Podcasts

FEATURED NEWS 5 must-read articles

By Alex Osiadacz   June 23, 2022   Share

Mayo Clinic Minute: What men under 40 should know about testicular cancer

With low trust and high privacy risk, consumer engagement & social media tools needs more work

In the US alone, **8 in 10 internet users search for health information online**; **74% use social media**. 99% of hospitals in the US have at least 1 active social media channel. However, there is a gap between what consumers are interested in doing and what they have experienced for their healthcare. Misinformation or poorly communicated information, lack of governance over social media, and handling of or mishandling of patient and user data raise many questions.

| *Challenge*	*Risk*	*Challenge*
Low trust in the consumer tools is by far the main challenge	**Privacy of patient data** is at high-risk	**Widespread misinformation** with non-credible opinions from non-healthcare professionals

Challenge	*Challenge*
Unclear governance and policies has created **skepticism related data** and personal information	**Misunderstanding** of **consumer health** vs **medical** health **data** putting clinical decisions at risk

"New" Facebook vulnerability was reported...by patients

- Discovered first by <u>Andrea Downing</u>, <u>SicGRL</u>, a **massive cybersecurity vulnerability in health support groups on Facebook** that impacted millions of people.
  - Any group member (E.g. a malicious attacker) **can download the real names**, **locations, and contact information** of all members of the group. Attackers would scrape data from thousands of "Closed" groups at once without even being a member of the group, and without any group member knowing that a fake user had done this.
- After the problem was reported through **Facebook's white hat portal**, **Facebook changed their design and made it so only members** of the group could download the information. While this vulnerability is partially closed, it has **not been fixed** by Facebook.
- Recently, Facebook has announced that it will rename "closed" groups to "private visible" and its "secret" groups to "private hidden". But has not actually seen this change on the platform itself. **Not only does this not fix the privacy problems with clinical support groups, it makes it worse.**
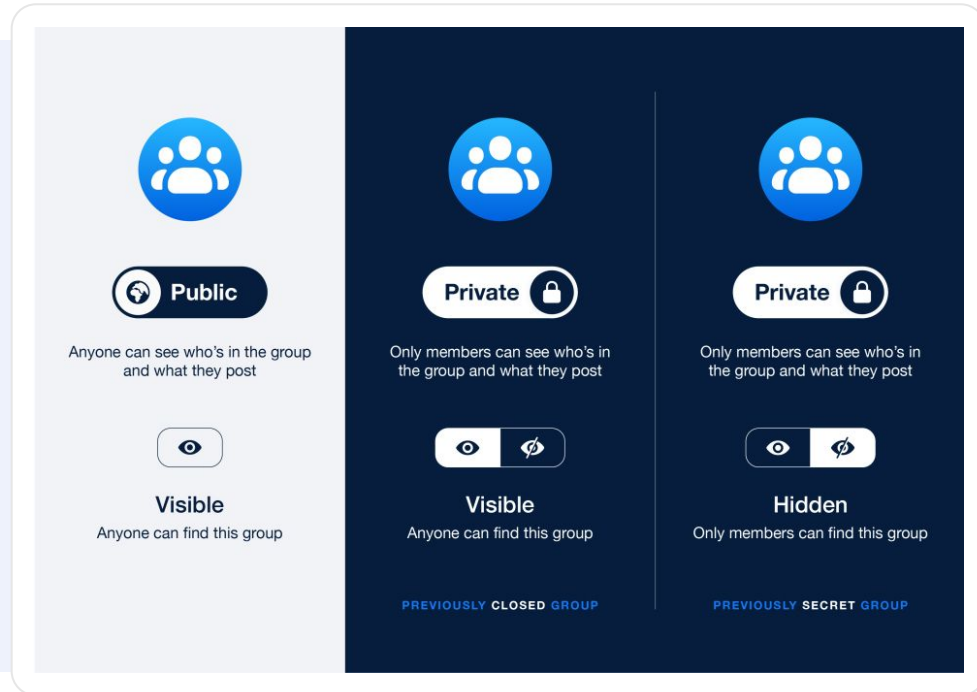
Tip of the iceberg? Hospital websites send personally identifiable information (PII) to Facebook

Home » Security Boulevard (Original) » News » HIPAA FAIL: ~33% of Hospital Websites Send PII to Facebook

HIPAA FAIL: ~33% of Hospital Websites Send PII to Facebook

by Richi Jennings on June 17, 2022

A study shows many U.S. hospitals are leaking personal information to Facebook. Patients' data is silently scarfed up by the *Meta Pixel* tracking widget.

Hospitals often utilize a **tracking tool, such as** Meta Pixel (a subsidiary of Facebook) on their websites. While this tool tracks how people are using a hospitals website, it could also track sensitive health information, particularly if installed in a patient portals, and **connects that information to a patient's IP address**.

A class action lawsuit has now been filed against Meta, alleging the company **did not attempt to gain "patient knowledge, consent, or valid HIPAA authorizations."**

Safeguarding patient data is a safety issue

While the **most likely** and **most harmful** data risks stem from **data loss** through **accidental deletion** or **failure of continuity measures**, it is also critical to protect against data abuse:

Theft is a **data security** issue.

Although the **security of a system cannot be guaranteed,** quality design and execution can decrease the risk of harm from code flaws, configuration weaknesses, or other issues.

Misuse is a **data rights** issue.

Notably, some data and system **access** *may be* **authorized** (or perhaps "not forbidden"), though unwelcome or undisclosed to the patient or other stakeholders. This type of access will also be covered in the next section.

Failure to safeguard against security threats and violations of individuals' data rights is also a risk to researchers and clinicians.

FDA has built relationships with security researchers through initiatives like WeHeartHackers.org at DEFCON

U.S. FOOD & DRUG ADMINISTRATION

Search FDA

‹ back to Workshops & Conferences (Medical Devices)

Public Workshop - Content of Premarket Submissions for Management of Cybersecurity in Medical Devices January 29-30, 2019

f SHARE   TWEET   +   EMAIL

The Food and Drug Administration (FDA) is announcing a public Workshop entitled "Content of Premarket Submissions for Management of Cybersecurity in Medical Devices". The purpose of the workshop is to discuss the
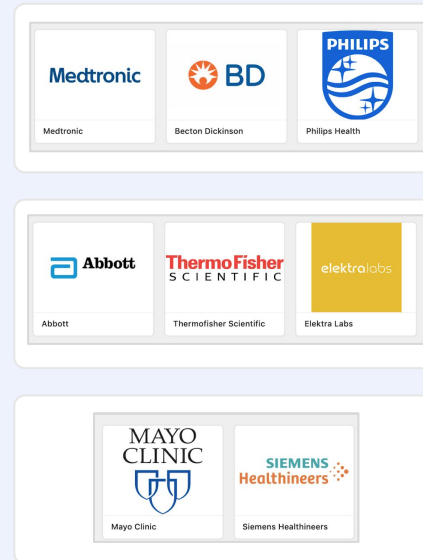
Scott Gottlieb, M.D. ✔ @SGottliebFDA · Jan 29, 2019
Replying to @SGottliebFDA
Workshops like this are one part of our ongoing efforts to bring together all stakeholders in the cybersecurity ecosystem to carry out a "whole of community" approach in which we're all doing our part to ensure devices are secure and patients are protected.

Scott Gottlieb, M.D. ✔
@SGottliebFDA

At future events – like @Defcon – we encourage manufacturers to increase engagement with the cyber research community through device demos and our #wehearthackers event. This demonstrates a company's commitment to cyber principles: Trustworthiness. Transparency. Resilience.

♡ 31   11:06 AM - Jan 29, 2019

Medtronic

Becton Dickinson

Philips Health

Abbott

Thermofisher Scientific

Elektra Labs

Mayo Clinic

Siemens Healthineers

Source: DiMe-VHA The Playbook: Healthcare team analysis, The Playbook: Digital Clinical Measures, Content of Premarket Submissions for Management of Cybersecurity in Medical Devices - FDA, We heart hackers

12

LEARN FROM THE EXPERTS

Click on the image below to launch

VISIT THE WORLD OF TOMORROW

DEF CON

What are the privacy implications of having a patient support group on Facebook?