Digital Trends in the U.S. Healthcare Insurance Industry
Today’s consumers are empowered by technology that compels healthcare players to explore new forms and channels of engagement. Continuous evolution of customer behavior means insurers and providers must align their business models to focus more on customer preference and demand. However, according to Gartner, only 12% of insurers consider themselves digitally enabled, while the majority believes they are digital beginners.

As the insurance industry embarks on a digital transformation journey, health insurers strive to digitize their business processes to streamline customer service. At the same time products and services are being tailored for a more personalized customer experience.

Data analytics, cloud, and social media platforms are some of the popular digital tools being used to capture patient feedback.

But even with access to these digital tools, the industry is still challenged to effectively leverage customer data due to strict government regulations, lack of proper IT infrastructure, and data security and privacy issues. Insurers seek a balanced digital strategy that enables them to quickly analyze vast volumes of data from various sources to generate real-time insights that can be used to build innovative and personalized insurance offerings.

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2. Overview of the U.S. Healthcare Industry

The U.S. healthcare industry centers on patients, providers, payers, and life sciences/pharma companies. Although some key stakeholders may work in silos, they are slowly trying to increase communication and interaction for better real-time data processing.

Exhibit 1: The U.S. healthcare ecosystem

It is essential that insurers, providers, and other stakeholders come together to create an ecosystem that enables a more seamless and integrated operating environment. This will lead to enhanced customer experience and a win-win model for the providers and insurers.
3. Drivers for Digital Trends in Health Insurance

As today’s healthcare sector evolves toward a more digital environment, the industry is rapidly becoming more data centric. Using a variety of connected devices and apps, insurers and providers can now access huge volumes of patient data, which enables them to quickly adapt to changing patient needs. E-health, telemedicine, and Internet of Things (IoT) devices are digital tools driving this technological change.

Key influencers include:

- Fast growing demand for new fitness apps and products
- Need for greater focus on innovation due to increasing competition
- Demand for seamless data sharing, better communication, and higher integration between insurers and providers for improved customer engagement
- Shift in consumer preferences as today’s tech-savvy patients want to be up-to-date about their health conditions
- Advanced automation tools and the advent of Artificial Intelligence enabling greater scope for digitalization

Digital transformation is reshaping today’s health insurance business. Business strategies are being realigned to bolster agility to add innovations in support of the latest technology.

In the United States, millennials are demanding the latest high-tech products and solutions from insurers. This tech-savvy patient group is driving insurers and providers to transform their business to remain competitive.

Exhibit 2: Focus Areas for Digital Trends

![Exhibit 2: Focus Areas for Digital Trends](image)

Source: Capgemini Financial Services Analysis, 2017

Connected devices, big data and analytics, and mobile and digital are key areas of healthcare insurance innovation.

As shown in Exhibit 2, innovation for health insurers and providers falls into three main categories:

- Big Data and Analytics
- Online and Mobile Platforms
- Connected Devices

These digital tools enable better customer communication and engagement, along with improved operational efficiency and proactive risk mitigation.

4.1. Enhanced Customer Engagement and Experience

In connected environments, customer opinion matters and users expect quick responses. A focus on customer engagement supports customer retention, and insurers provide enhanced, personalized customer experience by effectively leveraging different tools and apps.
Health Risk Assessment Tools

Healthcare expenses are a concern for both patients and providers. The rising rate of chronic illnesses such as high cholesterol, hypertension, and diabetes are often caused by unhealthy lifestyles; and well-documented risk evaluation methods may predict these ailments. When health insurers provide online health risk assessment tools, patients can evaluate their status and learn more about their health.

Risk assessment tools ask patients questions about possible symptom indications; and based on pre-defined algorithms generate a status report with an individual risk score for the disease. These risk assessment tools help insurers to:

- Provide customized patient engagement using the easily accessed data
- Collect crucial patient information and easily analyze the data at an aggregate level for obtaining valuable insights based on regional or demographic divisions
- Encourage desired patient behavior through tailored services for individuals based on their habits and current lifestyle
- Lower claims costs as patients are alerted to their specific health risks so they can seek further information to help reduce the health risk factor

Exhibit 3: Example of Health Risk Management Apps

Cigna provides health care tools for calculating risk such as, heart rate calculator, stress evaluator, BMI calculator, and smoke risk calculator – Cigna Website.

Gamification

Among innovative digital tools, gamification has emerged as an especially effective tool to influence and motivate patients using prizes, rewards, and points. Currently, around 33% of the total apps’ market is comprised of various games; while more than 100,000 healthcare apps are available in the market.

Health insurers use gamification for a wide range of purposes such as education, improved brand awareness, modifying customer interaction patterns to provide customized support, and encouraging better customer engagement. This helps with patient self-monitoring and goal setting for maintaining a healthy lifestyle.

Exhibit 4: Examples of Gamification

Diagnosis - CogCubed’s Groundskeeper game spots ADHD symptoms as it measures behavior of patients playing the game – Pennic, 2014.

Behavior Modification - Cigna’s Re-Mission game app is designed to motivate young cancer patients to follow their treatments – Cigna Website.
Social Media Engagement

Social media has become an important way to promote customer engagement and connectivity. Social media increases brand visibility and provides insurers an opportunity to gain useful input from reviews and online feedback. Additionally, it allows people with similar health goals to build communities and support each other toward achieving their goals by sharing real-time responses to health queries.

Via social media, insurers are able to tap into consumer sentiments and offer feedback, educate patients about new products and services, and quickly address issues via social listening.

**Exhibit 5: Example of Social Media Engagement**

Aetna uses its customer service Twitter handle @aetnahelp to quickly respond to customer queries and concerns – Enge, 2015.

4.2. Big Data Analytics and Data Security

As mobile technology and app use increases, health insurers are dealing with a deluge of real-time customer data, mostly unstructured and processed by analytical tools to generate valuable insights. Big data analytics offer new ways and methods to optimize such data, generating insightful information to help healthcare players provide customized customer service.

Customer Behavioral Analytics

Apart from traditional analysis of patient clinical data, insurers also use behavior analytics to study patient habits that can indicate their wellness and susceptibility to health issues. Insurers use various analytics to tailor their engagement strategies with individual patients for better interaction. By providing personalized advice and recommendations, such apps assist in education and increased health awareness among patients.

**Exhibit 6: Example of Customer Behavioral Analytics**

Ginger.io has developed a customer behavioral analytics platform that captures and examines the pattern of a customer’s everyday activity and uses them as points of entry for understanding the customer – Ginger.io Website.

Advanced Communication Analytics

Advanced analytics of customers’ clinical and behavioral data can be used to create targeted communications via the right channels, at the right time. By optimizing the communication plan based on patient behavioral traits, insurers can customize acquisition and retention strategies.
Advanced communication analytics can also leverage data and assist patients in managing their health. For example, if a consumer is erratic in their fitness routine, insurers can offer encouragement by sending alert messages and push notifications.

Predictive analytics can also be used to manage communication sessions between providers and patients. For example, for patients with behavioral health issues, when data indicates increased stress, a counseling session can be set automatically. These enhanced communication techniques help to increase both customer awareness and trust.

Customer Adherence Apps

Adherence apps help patients follow their medication and treatments through reminders and games. Today, a range of smartphone adherence apps help consolidate medication-specific information and send patient updates via reminders and notifications.

These touch points help consumers lower healthcare costs, reduce their number of hospital visits, and improve their medication adherence, which leads to fewer claims incidents.

Exhibit 7: Examples of Customer Adherence Apps

| Medisafe is a virtual pill box that reminds patients when it’s time to take their medication, and notifies a friend or family member if the patient forgets | Iafolla, 2015. |
| --- |
| The PatientPartner app helps patients improve medication adherence | Iafolla, 2015. |

Data Security

As real-time data usage by healthcare players increases, the secure managing and processing of the data remains key for insurers and providers. In 2015 and 2016, the U.S. healthcare industry suffered mega data breaches, as many leading insurers reported cyber attack.

Insurers are shifting their focus towards cloud-based platforms for maintaining confidentiality, complying with HIPAA, and improving their overall operational efficiency.
Cloud services help in monitoring and securing sensitive data during transmission of data through proper authentication.

Today a broad range of platforms helps insurers protect data through improved authentication and verification measures for better access control.

**Exhibit 9: Example of Data Security Platforms**

The Vormetric security platforms manages organizational data. The platform provides advanced encryption, tokenization, and authentication services. It also provides easy database and records accessibility via the cloud and proper authentication and protection – Vormetric Website.

### 4.3. Increased Adoption of Mobile Applications

Mobile devices have become indispensable as physicians, patients, and insurers use the technology to access, share, and receive information. The use of mobile apps, such as healthcare apps, mHealth apps, and agent apps, is gradually transforming healthcare via a more personalized mobile experience.

Healthcare apps play an important role in increasing efficient and convenient patient interaction. Consumers are also downloading wellness and medical apps to track and monitor their health, receive updates on medical developments, easily communicate with doctors and insurers, and manage drug administration.
mHealth and Telemedicine

An important part of eHealth includes mHealth, the use of mobile devices to connect, share, and monitor a patient’s health status. With our aging population growing, chronic diseases rising, and access to smart devices and connected medical devices improving, the mHealth apps market is expected to reach $49.1 billion by the end of 2020.³

Healthcare providers are also using telemedicine to provide services to patients in remote locations through video conferencing, digital image sharing and traditional phone calls. The telemedicine sector is growing significantly and is expected to reach $66.6 billion by 2021.⁴

Exhibit 10: Benefits of mHealth

<table>
<thead>
<tr>
<th>Key Benefits of mHealth</th>
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</thead>
<tbody>
<tr>
<td>Empowering Customers</td>
</tr>
<tr>
<td>Adhering to Medication/Treatment Compliance</td>
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<tr>
<td>Improved Information Flow and Use of Predictive Analysis to Offer More Enhanced Products</td>
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</tbody>
</table>

Source: Capgemini Financial Services Analysis, 2017

mHealth apps help empower patients to digitally monitor and manage their own health. They also assist critically ill patients by sending regular reminder messages and notifications to take medication and adhere to treatments for better results, thereby reducing the overall treatment costs. With the increasing flow of real-time data, insurers are able to provide customized offerings and pricing according to the health condition of the customers using predictive analytic tools.

Exhibit 11: Examples of mHealth and Telemedicine

JiveX Mobile users can easily get their information anytime. They can access their information from within or from outside the clinic – Visus Website.

HealthSpot allows patients to establish a face-to-face dialogue with the provider anytime and anywhere – Kim, 2013.


Agent Apps in the Health Insurance Industry

Because customers can easily contact an agent, file claims, and make payments through various mobile apps, it is imperative for agents to be enabled with the latest technologies to attract customers and remain relevant in the personal line market.

Exhibit 12: Advanced Features in Agent Apps

Many apps enable agents to better engage with customers. Some of the most popular agent apps include:

- **Calendar-CRM**: Agents can quickly locate detailed client information of clients
- **Scoreboard/Gamification**: Agents engage in healthy competition with mobile scoreboard/gamification where they can see who is leading in sales, gaining new leads, and meeting individual goals
- **Customer Chat**: Using customer chat apps, agents record messages and ensure timely responses to meet customers’ real-time needs
- **Geolocation**: The app helps an agent to understand the demographic and neighborhood conditions of their clients
- **White Space**: Provides customized information to agents on individual leads

Exhibit 13: Examples of Agent Apps

The IQ Agents app helps generate new lead alerts and provides quick responses whether or not the agent is available – Brown, 2015.

DocuSign makes it possible to sign documents online from almost any device. The app also provides signature verification options by linking to DocuSign ID cards – Brown, 2015.
4.4. Increased Adoption of IoT

IoT is affecting the healthcare in exciting new ways. From wearable devices to implanted chips, hospitals can monitor patient vitals and respond instantly if medical assistance is needed. These features have resulted in higher demand for IoT products and it is expected that the healthcare IoT market may reach $117 billion by 2020.6

Technologies such as wearables, sensor devices, and advanced connected medical devices are playing a key role in capturing patient needs and behaviors. Unfiltered data is processed with big data analytics and can precisely assess risk factors and pricing policies according to the health condition of the customers.

Connected Medical Devices

IoT affects the health insurance industry by providing vital patient information and creating a medical profile using connected medical devices such as implants, sensors, activity trackers, blood analyzers, and medication adherence systems. Such information is expected to result in fewer claims for health insurers, thus improving profitability. On the other hand, connected medical devices are also assisting patients by enabling real-time disease management, personalized and improved services, and reduced health risk and treatment costs.

While connected devices enhance the level of customer engagement, they are also vulnerable to unintentional errors and security breaches. Such security lapses can potentially impact the effectiveness of the devices and jeopardize patient safety. Also, the sheer volume of data inflow through these devices puts existing IT infrastructure under stress. Clearly, health insurers must future proof their business by digitally enabling themselves through upgraded IT infrastructure for the management and security of huge data inflows.

Exhibit 14: Example of Connected Medical Devices

iHealth BP5: A wireless blood pressure monitor which makes it possible to check blood pressure at any time, from anywhere – Gadgetmac Website.

Wearables:

Wearables such as fitness watches, digital pedometers, and smart sneakers are becoming more popular for both casual exercisers and elite athletes. Nearly 82% of users believe wearables have enhanced their lives7. It is predicted the market for wearables may reach $51.6 billion by the end of 2022, with a compounded annual growth rate (CAGR) of 15.1% from 2016 to 20228.
As Exhibit 15 illustrates, data collected through wearable devices helps insurers create detailed risk profiles, which makes personalized patient offerings possible. Insurers are also likely to provide premium plans that offer rewards depending on the physical activity and health outcome of the insured. With rising insurance costs in the United States, many employers are encouraging employees through various wellness incentives to maintain a healthy lifestyle.

**Exhibit 16: Example of Wearables Devices**

Philips COPD Device: Philips has launched a wearable device for patients suffering from COPD (a breathing disorder), where the data will be stored in cloud for further treatment – Philips Website.

### 4.5. Development of Customized Products

Fast-changing consumer preferences are spurring demand for customization and consumer-driven health plans that encourage patients to become more active in choosing their preferred providers and managing their medical expenses. Bundle services that form a customized solution also are gaining in popularity. U.S. health and life insurers are coming up with supplemental insurance or combined insurance to meet this growing demand.

**Combined/Customized Product Mix**

Product mix or combination (or combi) products have the features of both life and health insurance polices. The demand for such products is expected to grow in the future, especially since healthcare costs have increased and life insurance does not pay for chronic ailments. In the United States, the demand for life insurance combined products is higher as these combined products are more affordable.
Under combi products, a customer buys a single policy that covers both life and health insurance benefits. Combi policies will be cheaper to purchase.

**Exhibit 17: Example of Product Mix – Life and Health Insurance**

The “Vision Duo Solution” is a combination of both life and critical illness insurance – Desjardins Website.

### 4.6. Streamlining Operations

To remain competitive in the market, health insurers are becoming customer centric by streamlining business operations. They are also enabling customers with wider and better self-service options through advanced online and mobile platforms.

**Case Management Operations**

Health insurers are leveraging tools such as Business Process Management (BPM) to streamline claims. With such tools, insurers are able to automate their end-to-end claims processing with minimal errors. This has helped to optimize and eliminate unnecessary work that can be handled through artificial intelligence. Hence, health insurers are able to cost-effectively process claims much faster.
5. Conclusion

The increasing role of digital technologies in day-to-day life is changing the healthcare industry landscape. Customer experience is playing a crucial role in driving these digital trends. Insurers and providers are now more customer-centric and are streamlining operating models to meet patients’ changing preferences, demands and needs.

How digital trends affect insurers and providers:

- The demand for connected devices such as wearables and telemedicine equipment is increasing due to the spike in IoT use
- Consumers are tracking and monitoring their health conditions and taking preventive measures to minimize treatment costs
- The growing popularity of connected devices makes it important for insurers, providers, and other healthcare stakeholders to revamp, digitize and integrate their existing IT infrastructure
- Advanced analytics tools are being used to form integrated ecosystems that enable real-time processing of patient data from diverse sources, as well as accurate risk-profile determination, and that allows insurers to offer more customized plans and pricing
- Digital tools are being used to manage huge customer data flows to prevent breaches and to maintain cybersecurity

Now more than ever, healthcare insurers must proactively track and identify changing market dynamics to remain competitive. Innovation will continue to be the key to enhanced patient experience. Data analytics will allow increased understanding of—and response to—consumer needs through real-time data insights. Future-focused insurers will personalize the patient experience using advanced tools and apps while formulating an actionable strategy to accelerate their digital journey.

Clearly, health insurers must craft and follow a core digital strategy in order to leverage the competitive advantages of technology innovation.


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