Healthcare Insights



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Message from our Healthcare Senior Partner Sagitec truly believes in providing value and solving complex

problems for our current and potential customers. We have been thinking of innovative ways to provide you with solutions and thought-leadership that spark ideas leading to efficiency, effectiveness, and productivity.

Jeff Bezos once said "We're not competitor-obsessed, we're customer-obsessed. We start with what the customer needs and we work backward."

I am proud to announce that our first newsletter is ready for your reading. We will be publishing these on a regular basis and our goal is to provide you with relevant thought leadership, news about Sagitec that you might not be aware of and our take on healthcare industry topics.

This edition focuses on the importance of integrated health programs and how vaping is becoming increasingly prevalent among American youth. These articles also touch upon how technology can help roll out integrated health programs or curb addictions like vaping. In addition, the newsletter has an article on the importance of the cloud in today's technology landscape and an introduction to chatbots. Lastly, we are proud to be included in GovTech's top 100 government technology companies. The inclusion of Sagitec on this list validates our approach to serving the public sector with new technology offerings.

We hope you enjoy these articles. Do forward them to your teams. Please let us know if they ignite new thoughts and what else you would like to hear about in future newsletters.

Cheers,

CJ Ravi Sankar Healthcare Senior Partner

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Should Vaping Be Treated as a Substance Use Disorder (SUD) Among Youth?



CJ Ravi Sankar Senior Partner

Current vaping use among the U.S. teen population indicates a growing, harmful trend.

A recent report released by The National Institute of Drug Abuse (NIDA) revealed that the use of vaping devices has dramatically increased among America's teens. In just one year, the number of 12th graders that reported using some type of vaping increased from 27.8 percent in 2017 to 37.3 percent in 2018. Within the same group, nicotine vaping increased nearly 10 percentage points and marijuana vaping increased 9.5 percentage points in one year.¹

In **The Juul Manifesto**, a playful ode to Juuling, you hear a teen's view – "We smoke it because dubious internet "scientists" tell us it is supposedly healthier than cigarettes, and because we can furtively blow the vapor down our sweatshirts in the back of lecture halls." While it's become a symbol of millennials, the reality is that nicotine delivery in any form remains addictive. A recent WSJ article lamented on the non-availability of treatment options for teen vapers looking to guit.

Vaping products are fairly new to the consumer market when compared to cigarettes and we don't have longterm data available to support whether vaping is safer or more harmful than traditional tobacco smoking. What we do know is that smoking is the leading cause of preventable deaths in the U.S. and according to the Office of the U.S. **Surgeon General**, vaping products can contain toxic chemicals, toxic metal nanoparticles, and other cancercausing substances or carcinogens.²

Research evidence has accumulated for the beneficial effects of digital technologies which extend clinical interventions for recovery programs for Alcohol Use, Tobacco Cessation, Illicit Drug Use, and Gambling. Given the adoption of technologies by millennials, it's useful to examine tech-based solutions for addressing vaping addiction. Complementing time at a recovery center, digital aids can be used to track moods/cravings and behavior.

While it is technology that has made the vaping SUD more prevalent, technology can also be used to monitor it. For example, schools across the U.S. are **installing sensors** that can detect vaping vapors and alert administrators. You also have products like Sagitec HealConnect that can help recovery with tools for managing cravings while tracking mood and activities.



- 1 "Teens using vaping devices in record numbers I National Institute on Drug Abuse." Dec. 17, 2018 https://www.drugabuse.gov/news-events/news-releases/2018/12/teens-using-vaping-devices-in-record-numbers
- 2 "Know the Risks: E-cigarettes & Young People" https://e-cigarettes.surgeongeneral.gov/



The number of 12th graders that reported using some type of vaping increased from 27.8 % in 2017 to 37.3 % in 2018.

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Don't get Left Behind in the Digital Race



Ranjith Kotcherlakota Senior Partner

Cloud momentum continues to accelerate across all industries, but the uptick in adoption by government agencies has been slow. Organizations that run their own IT have to deal with hardware, software, patches, data security, networking updates, disaster recovery, and IT staffing which are all resource intensive. Cloud vendors like Microsoft efficiently and economically handle those activities.

There are a number of reasons why cloud is here to stay:

1. Reduces infrastructure costs and overall total cost of ownership

The cloud eliminates physical servers and storage space, real estate, power, and personnel to a large extent. While it may seem like the costs of an on premise solution are lesser, most organizations forget that most of these costs are hidden and recurring. The subscription fees of a cloud solution might be high, but the ongoing costs are minimal thus providing long-term benefits to government agencies often riddled with low budgets and lack of resources.

2. Scalability

Instead of using all the space all the time, cloud solutions can scale during peak times and ramp down at other non-peak times due to low usage.

3. Business continuity and automatic updates

Business Continuity and

Microsoft Azure guarantees 99.9% uptime. Disaster recovery solutions are also available, thus making business continuity a no-problem area. Regular software updates are provided automatically thus eliminating precious time of government agency personnel.

4. Security

Contrary to popular belief, cloud gives greater protection if implemented right. Even if personal machines get hacked, the data on the cloud is secure.

5. Increased collaboration

A cloud solution makes it possible to share documents amongst colleagues, thus making collaboration easier and increasing productivity.

Even with all these cloud advantages, public sector agencies have been slow to adopt cloud for many reasons. They have the challenge of trying to achieve all of the above advantages cloud provides while adhering to the highest level of security and compliance requirements.



Public sector entities exist under a microscope of expectations and demands. One eye faces towards connecting all the pieces within and across agencies most seamlessly, while the other looks towards future innovations, both in technology and the creation of ideas. To make both visions come together requires robust management tools that create a simplified IT experience. But that's strictly at the IT level. At the resource level, these agencies need the agility to respond to almost any situation. At the economic

level, they need to maximize their investments in ways that address constricted budgets. Finally, they need to evolve their security levels to minimize risk continually.

According to a recent survey by Penn Schoen Berland, 693 US Government customers were asked to rank their top 20 most important needs from a cloud services provider. In addition to security and privacy, compliance and data residency were in the top five most important needs.

WHY WE RECOMMEND MICROSOFT AZURE GOVERNMENT CLOUD

Approximately 5.2 million people use Microsoft Cloud for Government, which includes Azure Government, Office 365 Government, and Dynamics CRM Online Government, according to Curt Kolcun, vice president of the US Sector for Microsoft.

In 2013, Sagitec made a business decision to expand its partnership with Microsoft by adopting the Azure Government Cloud platform for achieving optimal performance and value. Currently, we have an 'Azure First' approach to all new business proposals and encourage all potential clients to move from on premise solutions toward a cloud infrastructure. This recommendation is based on industry trends, best practices, scalability, flexibility, and overall lower total cost of ownership.

For you, and other state and local government organizations, we strongly recommend the Azure Government Cloud as your best choice for adhering to foundational principles of security, privacy, control, compliance, and transparency. Microsoft Azure is a government-community cloud that extends world-class security and control for dedicated US public sector workloads and provides a full commitment to government compliance standards.



Provides a physical and network-isolated instance of Microsoft Azure.



Provides screened U.S. citizens and policies to help protect customer data and applications.



Stores data within the United States.

So the question today is not whether the public sector should adopt cloud or not, but how fast and how far can the public sector go to the cloud? The benefits of cloud far outweigh the problems, and clear strategies can be set to overcome adoption inhibitors. Government agencies can rely on IT partners who have experience in multiple cloud migrations and trust them to help migrate to the cloud.



By 2022, public cloud services will be essential for

90% of business innovation

Source: Gartner 2018

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app. Chatbots can also communicate with text or speech.

Types of Chatbots

Rule based Programmed to respond to specific pre-defined commands.

Machine learning based Understands natural language, learns



85% Chatbots will power 85% of all customer service interactions

In 2017, 35.6 million Americans will use a voice-

Benefits

by the year 2020. (Gartner)

Ease of use: if you know how to read and type, then you know how to use a chatbot.

Faster service and enhanced customer experience: chatbots reduce customer wait times.

Challenges

Limitations with natural language processing and understanding of colloquial, local, and slang language.

Following a rule-based path, rarely accommodating deviations; leading to unsatisfied customer experience.

Lack of context which leads to inaccurate answers.



Human to human - chat availability between members and agents to cater to rising chat popularity.

If a bot is not able to answer the question, interaction with a human is the last step.





Chatbots can have extended dialogs with you through communication platforms like Facebook Messenger, Skype, LinkedIn, Instagram, or Web chat and can even be integrated with a member web portal or a mobile



Why Chatbots Simple answer – self-service



Organizations that encourage their employees to look for answers on their own, have 60% more satisfied employees, can provide more growth opportunities, and have 30% less employee turnover.

Trends

35.6M

activated assistant device at least once a month. That's a jump of 128.9% over last year. (eMarketer)



60% of U.S. online adults already use online messaging, voice, or video chat services. (Forrester)

24/7/365 availability: chatbots can provide service anytime of the day, all year long.

Reduce cost of customer service: with advancing technology, cost of building a chatbot is reducing fast.

Increased efficiencies: government agencies can use them to answer immediate queries and free up valuable time of their agents.

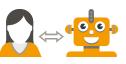
Solutions

North Carolina's Innovation Center (iCenter) is piloting chatbots to free up internal IT help desk personnel from answering mundane gueries.

The city of Mesa, Arizona is testing a text message chatbot that can answer frequently asked questions about available services.

(South Carolina) are some other cities using chatbots for answering citizen questions and letting them be part of city development by

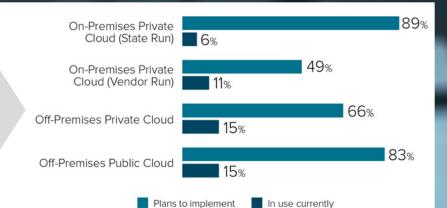
Sagitec Chat Scenarios

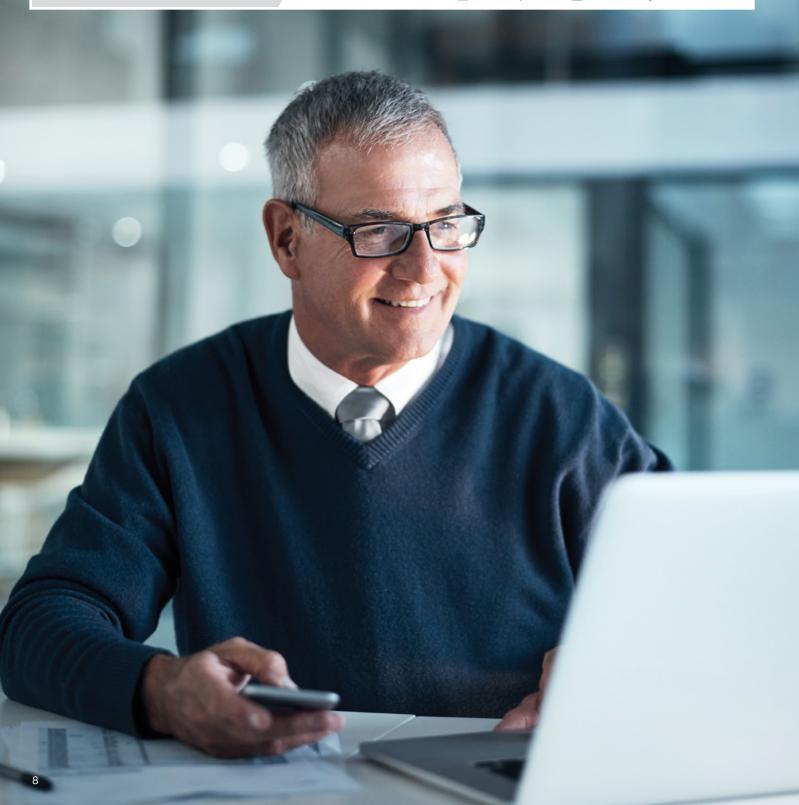


Human to bot - three areas where Sagitec chatbots pick information and answers: 1) Body of knowledge, 2) Database or FAQ. 3) Combination of both.

State CIOs Plan **Strong Cloud Growth**

Source: 2018 Digital States Survey





Integrated Care Model

Integrating physical and behavioral healthcare

There are many parts working together in our bodies and research has shown that those individuals needing treatment for more than one condition of the mind and body, die on average more than 10-25 years earlier than those that do not.¹ Many medical professionals and researchers believe that this is an increasing trend and that the number of individuals with comorbid conditions will continue to rise in the years ahead.² Even more important, is that many behavioral health disorders are often overlooked by non-psychiatric physicians and general practitioners.

In the ever-changing world of medicine and healthcare, patients need to navigate two (or three) different systems including physical, behavioral, and substance use. Many times, this is even required by insurance providers. This is not only hard on the patient, but it can be very confusing. It can also lead to increased costs associated with numerous appointments. Is there a better way?

What is integrated health?

Integrated health is a way to simplify healthcare by bringing the two systems of behavioral and physical health together. This allows for fully integrated, coordinated healthcare by taking care of the whole person.

A single system approach includes a network of providers offering coordinated care for their patients and more seamless access to the services that they may need. Research shows that physical and behavioral health problems often occur at the same time and can be addressed more effectively in a coordinated system of care.³

The benefits of integrated health

The need for integrated healthcare came about under healthcare reform. Suddenly, millions of uninsured individuals with behavioral and physical health disorders moved into the formal health system. This was very evident, in particular, within the Medicaid program Healthcare providers and government officials found themselves in a situation in which they had a high priority to make efforts to improve the quality and efficiency of care for the patients in this population.⁴

This type of care can be provided in a number of settings, but research has shown that nearly half of all the patients that seek treatment for behavioral health problems do so at their primary care provider's office. Current evidence shows the potential of a number of integrated approaches, but the best has been shown to be one in which practi-

- 1 "World Health Organization Information Sheet Premature Death Among People with Severe Mental Disorders" https://www.who.int/mental_health/management/info_sheet.pdf
- 2 "Comorbidity of mental and physical disorders: a key problem for medicine in the 21st century" | Sartorius, N. 10 April 2018 https://onlinelibrary.wiley.com/doi/full/10.1111/acps.12888
- 3 "Integrating Behavioral Health and Primary Care: Consulting, Coordinating and Collaborating Among Professionals" I Cohen, D et al, Sept 2015 https://www.jabfm.org/content/28/Supplement_1/S21
- 4 "Healthcare Reform and Preparing the Future Clinical Child and Adolescent Psychology Workforce" I Janicke, D. et al., 09 July 2015 https://www.tandfonline.com/doi/full/10.1080/15374416.2015.1050725
- 5 "The Medical Home and Integrated Behavioral Health: Advancing the Policy Agenda" | Alder, J. et al. 2015 http://pediatrics.aappublications.org/content/135/5/909



Lakshmi Saravanan Senior Partner

tioners and services are fully integrated. Other models may include a coordinated or co-location approach.5

Integrating behavioral and physical healthcare not only provides a simpler way of obtaining treatment by it also improves the quality of care necessary for patients to lead longer, healthier, and more productive lives. It offers an important opportunity to reduce disparities by eliminating the early mortality gap, providing behavioral health services to individuals that would not seek care or do not have access to care, and to provide care earlier in order to prevent or decrease morbidity.

How can technology help?

Solutions like Sagitec's HealConnect can help organizations roll out integrated health programs to members. You can customize care plan variants to move away from the one-size-fits-all approach. For example, HealConnect can roll out a PHQ-9 assessment 4-6 weeks after delivery to check for post-partum depression. Based on assessment results, HealConnect can enroll the patient in a Depression Support Program or refer to a Behavioral Health Provider.

Sagitec Named as Member of 2019 **GovTech 100** Top Government Technology **Companies List**

Sagitec has been shortlisted in Government Technology's prestigious 2019 GovTech top 100 government technology companies list.

The GovTech 100 is an annual list compiled and published by Government Technology as a compendium of 100 companies focused on, making a difference in, and selling to state and local government agencies across the United States.

It is a great way to recognize companies founded to solve problems unique to the public sector. GovTech 100 companies represent a growing set of scalable, digital solutions addressing the tough, complicated

problems that governments face from healthcare and public finance to pension administration and labor and employment.

"Four years in, the GovTech 100 continues to provide a glimpse at the most innovative companies partnering with government to solve missioncritical problems," said e.Republic Chief Innovation Officer Dustin Haisler, who was heavily involved in the list's creation.

2018 was remarkable for the number of large, significant deals that reshaped the landscape, bringing the sometimes fuzzy outline of how a government technology company can be a profitable investment into clearer focus.

"It is an honor to be part of this prestigious list, amongst a lot of innovative players because it validates our approach to helping clients become more effective, efficient, and customercentric", said Piyush Jain, CEO, Sagitec. "Our goal has been to help government agencies in the benefits administration industry. We have been doing so for the last 14 years and will continue to invest in innovative technologies, faster processes, and domain expertise to modernize legacy systems."

Sagitec is proud to be part of this year's list and is certain that it can help the public sector and the benefits administration industry a lot more with its focus on cloud and cutting edge technology solutions.



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Piyush Jain, CEO, Sagitec



DRIVING VISION INTO ACTION



About Sagitec

Sagitec Solutions, LLC, is a global software provider focused on solving complex, business-rule driven problems with domain experts and proven technology. They help healthcare organizations engage patients to reduce administrative burden and manage their patients' health. Sagitec's HealConnect solution is designed to help State Medicaid and Managed Care organizations manage recertification, incentives, and customer support, run integrated care programs, and allow members to manage their health. In addition to serving the healthcare industry, Sagitec Solutions also designs and delivers software solutions for the pension, unemployment insurance, paid family leave, disability, and workforce industry. With deep industry experience in software implementation and systems integration, project management, knowledge management, predictive analytics, chatbots, cloud services, consulting, hosting, and software support, Sagitec is a partner clients can trust to drive their vision into action. For more information, visit **www.sagitec.com**.



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