



APPRISS[®]
HEALTH

ANNUAL **2020** 
IMPACT REPORT

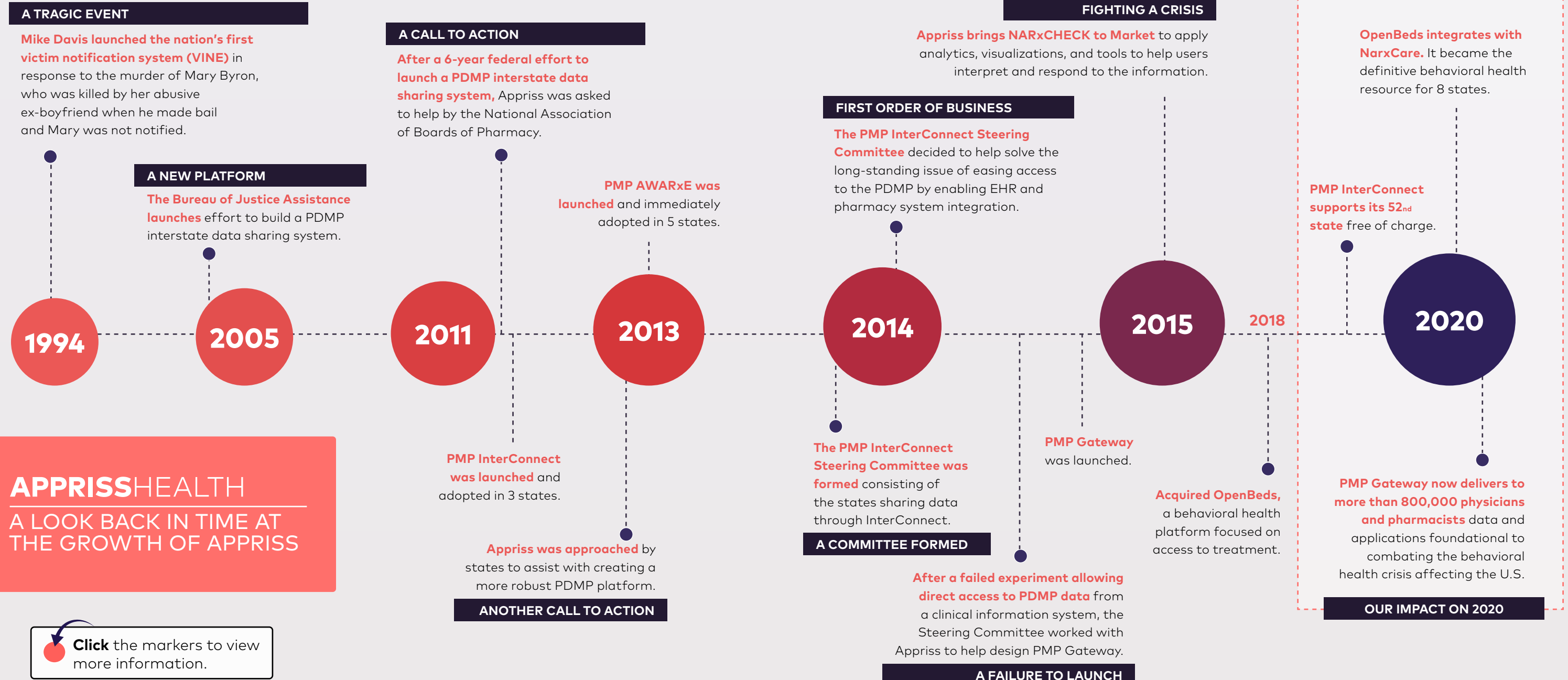


APPRISS FOUNDING BELIEF

"TECHNOLOGY CAN DO A LOT OF GOOD IN SOCIETY" laid the foundation for Appriss Health and inspired our tagline *Knowledge for Good*. It is important to our mission of serving public health.

MISSION

Enabling government, HIEs, hospitals, health plans and pharmacies with technology solutions for the management of behavioral health and substance use.



APPRISSHEALTH

A LOOK BACK IN TIME AT THE GROWTH OF APPRISS

Click the markers to view more information.



Rob Cohen

The past year has been difficult for the world.

At Appriss Health, we are committed to improving public health, specifically in the areas of substance use and mental healthcare. Company-wide we are focused on supporting our partners by using our software and services to provide the healthcare community with the information they need to make the best healthcare decisions possible. During 2020, we extended our leading technology to help improve access to healthcare resources for many of the most difficult diagnoses plaguing society.

The impact of the COVID-19 pandemic on public health has been devastating. Across the nation we've seen spikes in overdoses and mental health crises.

However, in this time of crisis, forward-thinking organizations like the Veteran's Health Administration chose Appriss Health, through an extensive competitive process, to support its veterans across its 2,000 facilities nationwide. **We are inspired by solving big problems. We are all about progress; we set out to do something and we do it.**

As the pandemic unfolded, our team recognized the capacity challenges hospitals could face early in the year and took action. By late spring, our technology was leveraged to create the Critical Resource Tracker, a new solution to automate reporting of available resources such as ICU beds and ventilators. Daily visibility was provided throughout a state and to HHS Protect for resource planning. The software has enabled hospital staff to connect patients with the resources they so desperately need.

States further focused on **arming clinicians with additional resources to help them most effectively care for patients.** Six states funded statewide integration of the prescription drug monitoring program (PDMP) into HIEs, EHRs, and pharmacy systems and one additional state funded NarxCare, a PDMP data visualization and analytics application that assists prescribers with the difficult task of identifying patients at the greatest risk of overdose. Today we support a total of six industry standards for sharing data across the nation, adding two more this year. Our Net Promoter Score survey has shown that users accessing the PDMP in workflow are 155 percent more likely to be promoters, compared to those accessing via the web portal.

OpenBeds, our solution dedicated to connecting individuals to behavioral health resources, continued to expand its reach into new states with eight states now contracted to provide its services, and one more deploying the solution in early 2021.

Despite the many global challenges we faced in 2020, our team at Appriss Health was proud to be on the frontlines supporting so many of the nation's heroes. Looking into 2021, we expect to see many of these challenges continue; but you can be assured that our team will be there to support all our customers and healthcare providers.

Best,

Rob Cohen

President of Appriss Health

SUBSTANCE USE DISORDER

2020 BY THE NUMBERS

“Throughout 2020, we witnessed a wide variety of unique situations unfolding. It was widely reported that substance use disorder challenges were at an all time high. Meanwhile, we saw prescription opioid rates drop slightly. The reasoning for these seemingly contrasting data points was the cancellation of many elective medical services and procedures due to the pandemic.

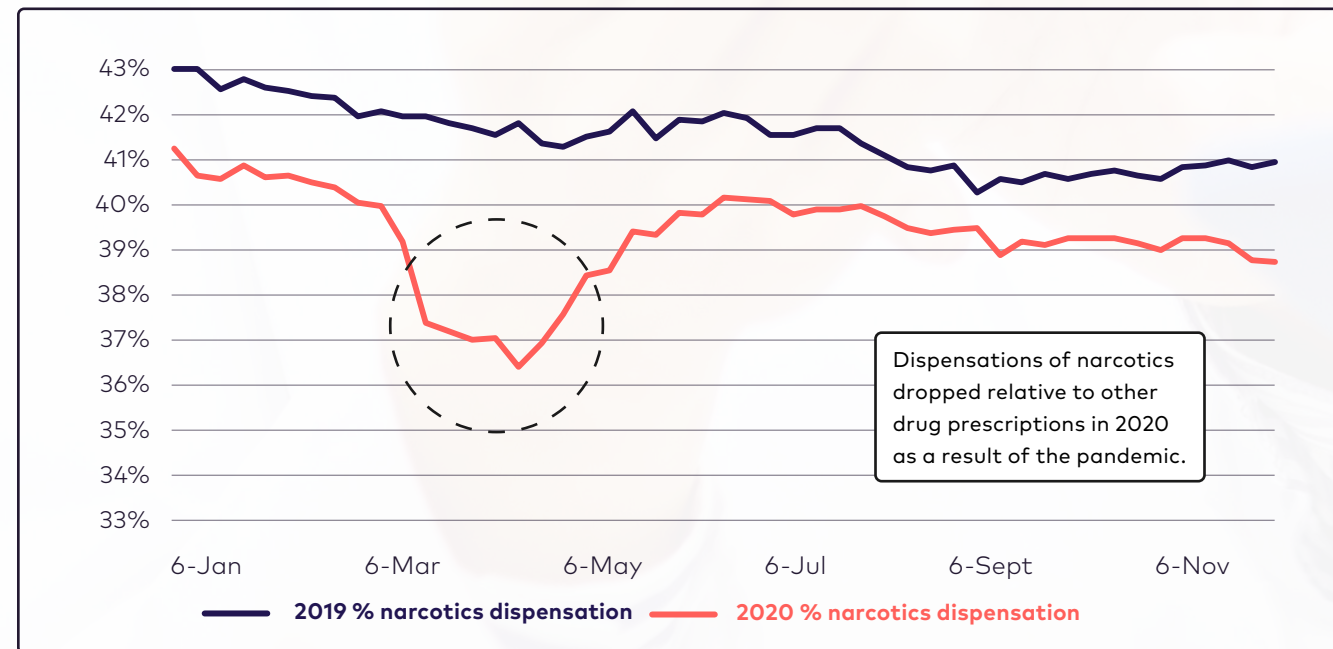
However, during the same time period, we saw a spike in sedative prescribing. Patients were struggling with the added stress and anxiety of the pandemic and economics. Prescribers turned to sedatives to help patients cope.

Time will tell whether these prescribing changes remain, but we anticipate fluctuation to continue until the nation achieves a new normal, post-pandemic.”

- **Krista Whalen, PhD**
Data Science, Apriss Health

TOTAL DISPENSATIONS PERCENT NARCOTICS

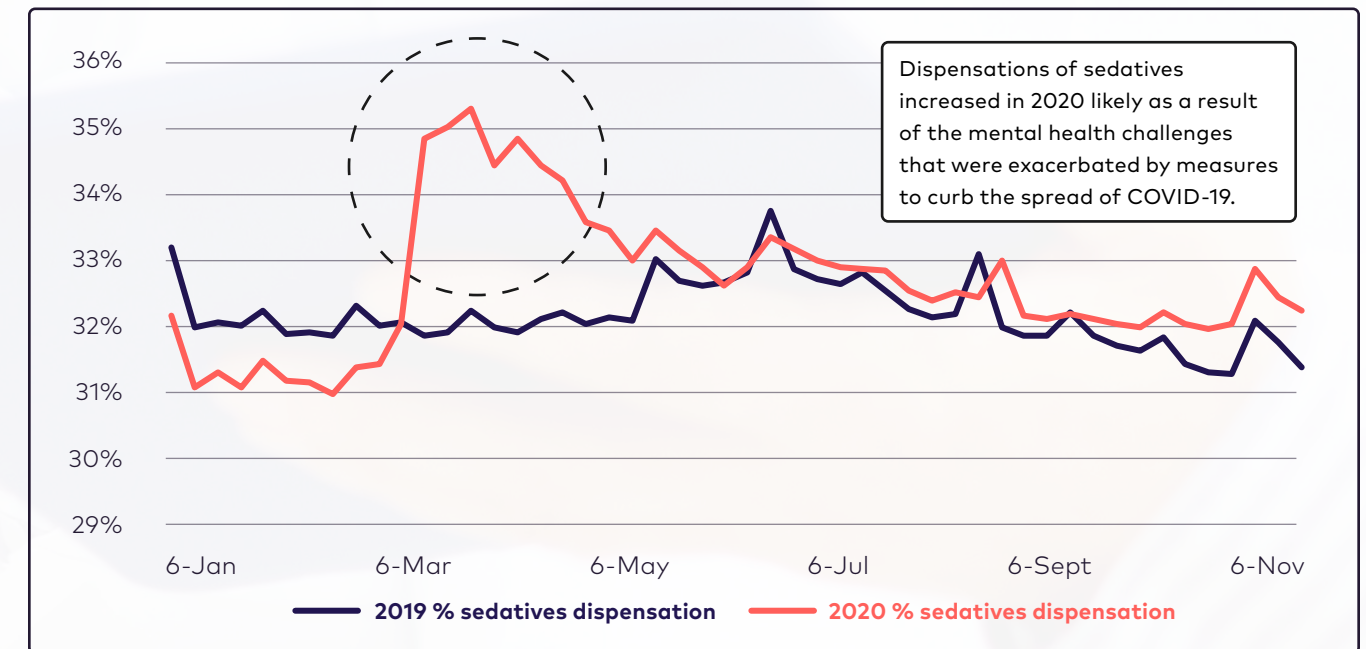
NARCOTICS DISPENSED AS A PERCENTAGE OF ALL PDMP-REPORTED DISPENSATIONS



Note: FL and AL have been removed from aggregate data.

TOTAL DISPENSATIONS PERCENT SEDATIVES

SEDATIVES DISPENSED AS A PERCENTAGE OF ALL PDMP-REPORTED DISPENSATIONS



Note: FL and AL have been removed from aggregate data.

THE SOLUTION

TECHNOLOGY THAT MAKES A DIFFERENCE

“States are rapidly expanding the purpose and meaning of prescription drug monitoring programs (PDMPs). **No longer are PDMPs strictly prescription registries. New data sets and capabilities are being added at an accelerated rate.** Integration of this critical data into the clinical workflow of physicians and pharmacists is now understood to be essential to adoption. Ease of use is critical to physician engagement as the race to address the intersection of substance use disorder (SUD) and mental and behavioral health challenges begin. **Integrating mental health treatment access** to patients with SUD at the point of care **will be a significant 2021 public health challenge and opportunity.**”

- **Brad Bauer,**
Senior Vice President,
Business Development,
Appriss Health

2020 LANDMARKS

86%

increase in healthcare facilities utilizing PMP Gateway in 2020

1.6 Million

AWARxE users

120,000+

new practitioners with the PDMP integrated into and active in their EHRs

43 of 54

PDMPs operating on Appriss Health software

52 of 54

connected U.S. PDMPs via PMP InterConnect

43

EHR and e-prescribing solutions, including 10 pharmacy management systems (PMS), integrated in 2020

6

new states funded PDMP data integration into workflow via PMP Gateway in 2020

3,727

new pharmacies integrated into the PMS via PMP Gateway

99.957%

patient matching accuracy rate



CONNECTING THE NATION

Appriss Health is the nation's largest standards-based technology provider for housing, analyzing, distributing and integrating controlled substance and other PDMP data and alerts. Every day our solutions facilitate more than four million queries from around the nation. Combining our AwarxE, Gateway, NarxCare, and PMP InterConnect solutions, we're helping healthcare systems and providers, pharmacies, state governments, and health plans better identify, prevent, and manage substance use throughout the nation.

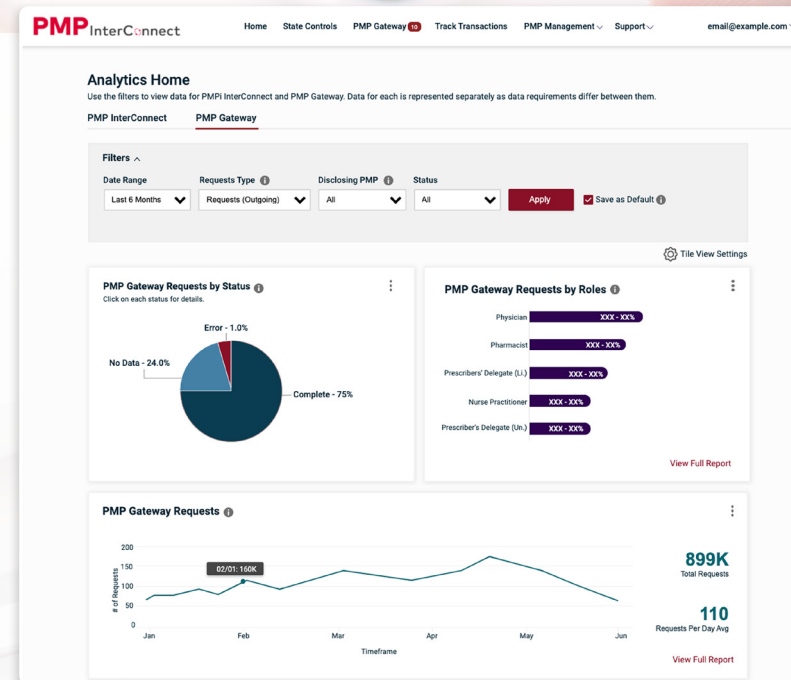
Backed by data scientists, Appriss Health solutions offer clinicians and pharmacists unrivaled patient-matching technology, seamless and fast data sharing, and risk analysis insights to **support safe prescribing decisions for 90 million patient encounters a month** within the clinical workflow. This experience drives increased

use of PDMPs, helping states to achieve public health surveillance goals and improving patient safety.

Appriss Health receives 2.9 billion searches per year across all the PDMPs it manages. Of those 2.9 billion searches received each year, only 1 support call about patient matching for every 770,000 searches is generated (0.00013%). 99.97% of patient records have never needed any manual correction to the patient matching.

The key to leveraging PDMP data around the country is interstate sharing through PMP InterConnect.

Every month more than **400 million prescription drug data requests and results** crisscross the country, through PMP InterConnect, as more professionals utilize these resources to help make decisions that are in the best interest of the patient.



(Left, below) **Coming in 2021:** New and improved UI with improved functionality.

But the key technology to advance the benefits of PDMP engagement is integration into an electronic health record (EHR). Every month Appriss Health solutions deliver insights for 80 to 90 million patient encounters directly into clinicians' point-of-care workflow.

BENEFITING FROM THE NATIONWIDE NETWORK

In the fourth quarter of 2020, the Veteran's Health Administration (VHA), the nation's most expansive network of healthcare services, representing over 2,000 facilities nationwide, deployed PMP InterConnect and PMP Gateway to support our military and their families. **Over 100,000 system users were connected to these systems in less than 45 days.**

Veterans have been especially hard hit by the opioid crisis and are nearly twice as likely to die of accidental overdoses than the general population. In response to the crisis, the Federal Government has aggressively emphasized safe and responsible use of prescription opioids and the use of alternative therapies to pain management, announcing earlier this year that it reduced prescription opioid use in patients within the VHA system by 64% (from more than 679,000 veterans to 247,000 veterans) from 2012 to 2020.

Now through the support of the Mission Act, VHA providers and their delegates will have access to a complete nationwide network of PDMP data and analytics. PMP Gateway enables easy access of state and interstate data from PMP InterConnect into the clinical workflow of the Vista electronic health record system. Simplifying data access will help the VHA continue to lower the use of controlled substances.

CUSTOMERIMPACT

ADAPTING TO A CHANGING ENVIRONMENT

PMP Gateway now makes it much faster and easier to access data, allowing physicians to spend more time focused on their patients.

- Kristian Feterik, MD
*eRecord Medical Director,
Interoperability, UPMC*

PMP GATEWAY

PMP Gateway increases utilization of PDMP data and alerts at the point-of-care through integration with almost all electronic health record (EHR) and clinical workflow systems. According to a recent 2020 survey, **physicians tout integration into their local EHR as a key factor to increase their usage of the tools.**

This solution is an open, standards-based integration protocol compatible with ASAP, NCPDP, and FHIR specifications and integrated with 500 EHR, PMS, HIE, and e-prescribing applications.

Physicians and hospitals have unique needs that have been proven to be best served by the combination of AWA Rx E, PMP InterConnect, Gateway, and NarxCare. This end-to-end solution is technologically superior, more secure and allows for service level agreements that meet user needs.

The ability to bring this data directly into the day-to-day workflow of physicians and pharmacists, while leveraging the largest collection of records across the nation makes the decision to integrate with our solution a simple one for many healthcare providers.



How Do Physicians & Pharmacists **Rate PMP Gateway?**

Physicians who access the PDMP via PMP Gateway have a satisfaction score **375% HIGHER** than physicians who access the PDMP via a web portal.

NPS SCORE: 47

PMP Gateway has a Net Promoter Score (NPS) of 47, which falls within the "Great" scoring bracket according to industry satisfaction standards.



Since their Gateway integration in 2019, **Norton Healthcare** reduced their total opioid prescribing by **51%**, despite a growing medical staff.

NORTON HEALTHCARE

The opioid epidemic was devastating the state of Kentucky. In spite of a 2012 law requiring physicians to check the state's PDMP database, Kentuckians were dying from drug overdoses at an alarming rate.

Although the state's PDMP was in place, accessing it was a

burdensome task, often taking up to 10 minutes of a clinician's time. This lengthy process resulted in clinician frustration and a higher prescribing rate.

Norton Healthcare chose to leverage PMP Gateway to integrate the PDMP information and alerts directly into their EHR.

Once the PDMP information was conveniently integrated into Epic for all physicians, the time to access and the associated frustration became a thing of the past. **Since integration, the prescription numbers at Norton Healthcare fell more than 51 percent from 2019.**

We wanted to help streamline the clinician's ability to look at the PDMP databases if they were going to prescribe narcotics and get a better understanding of a patient's history and to make sure that they weren't doctor shopping.

- STEVE HEILMAN, MD
Senior Vice President & Chief Health Innovation Officer, Norton Healthcare

CUSTOMER IMPACT

apprisshealth.com

YaleNewHavenHealth

We treated "JW," a 78-year-old female patient who was having a hard time breathing and presented to her primary care office with hypoxia (a low oxygen level). JW was a former smoker who had suffered a heart attack and chronic obstructive pulmonary disease (COPD). The

clinicians who sent her to the ED were unsure which condition was causing her hypoxia. **Testing for both heart failure and COPD were unrevealing. A check of NarxCare revealed a score of 571, which caused concern.** The physicians who sent her to the ED were unaware of other prescribers. Like many patients, JW did not understand the risks

of polypharmacy. Access to NarxCare in the EHR allowed the ED physician to very quickly see what was wrong. **We worked with JW's team of doctors to assure a single provider and transparency of her prescriptions. On that day in the ED, NarxCare helped save her life.**
Vivek Parwani, MD MHA FACEP
Medical Director, Adult Emergency Department at Yale New Haven Hospital

NARXCARE

Appriss Health is dedicated to sharing the science behind opioid use and educating users on the value of the data being shared.

The NarxCare technology automatically analyzes PDMP data and patient's health history and provides patient risk scores and an interactive visualization of usage patterns to help identify potential risk factors. This solution provides an objective insight into clinical risk, ultimately leading to more informed decision making and improved patient safety.

THOUGHTLEADERSHIP

10

Educational
Webinars

1,240

Educational
Webinars
Attendees



apprisshealth.com

TECHNOLOGY THAT MAKES A DIFFERENCE

BEHAVIORAL HEALTH & ADDICTION

People need simple access to medical care, in a timely manner. As a critical care physician, I have always known and believed that this basic premise is key to a successful healthcare system.

Unfortunately during my time practicing medicine, I found that patients battling addiction, or mental health disorders, were struggling to access care and rarely did so in a timely manner. I was appalled by the number of times when I could not connect a patient in crisis with the care they so desperately needed.

All too often I would treat a patient who had overdosed. Rather than sending them directly to inpatient care to assist with recovery and breaking the cycle of addiction, I would be forced to send them home with



a packet of post-care paperwork. I simply could not find available resources to offer them the care they needed. Most of those patients continued to battle their addiction without help.

This was the nexus for creating the OpenBeds platform. The goal of our team is to create a digital referral, treatment, and care coordination network that connects patients with the care they need, when they need it.

Patients in crisis want help in a timely manner; other factors are secondary. They simply want help to alleviate their suffering. As we continue to build a more accessible behavioral health industry in the United States, we must establish common-sense practices, like the mission of OpenBeds, to help our friends, family, and neighbors.

Nishi Rawat, MD
Senior Vice President,
Appriss Health

OpenBeds has allowed us to give our community a platform that offers transparency to the services available, and easier communications and referrals. Our community really loves the platform.

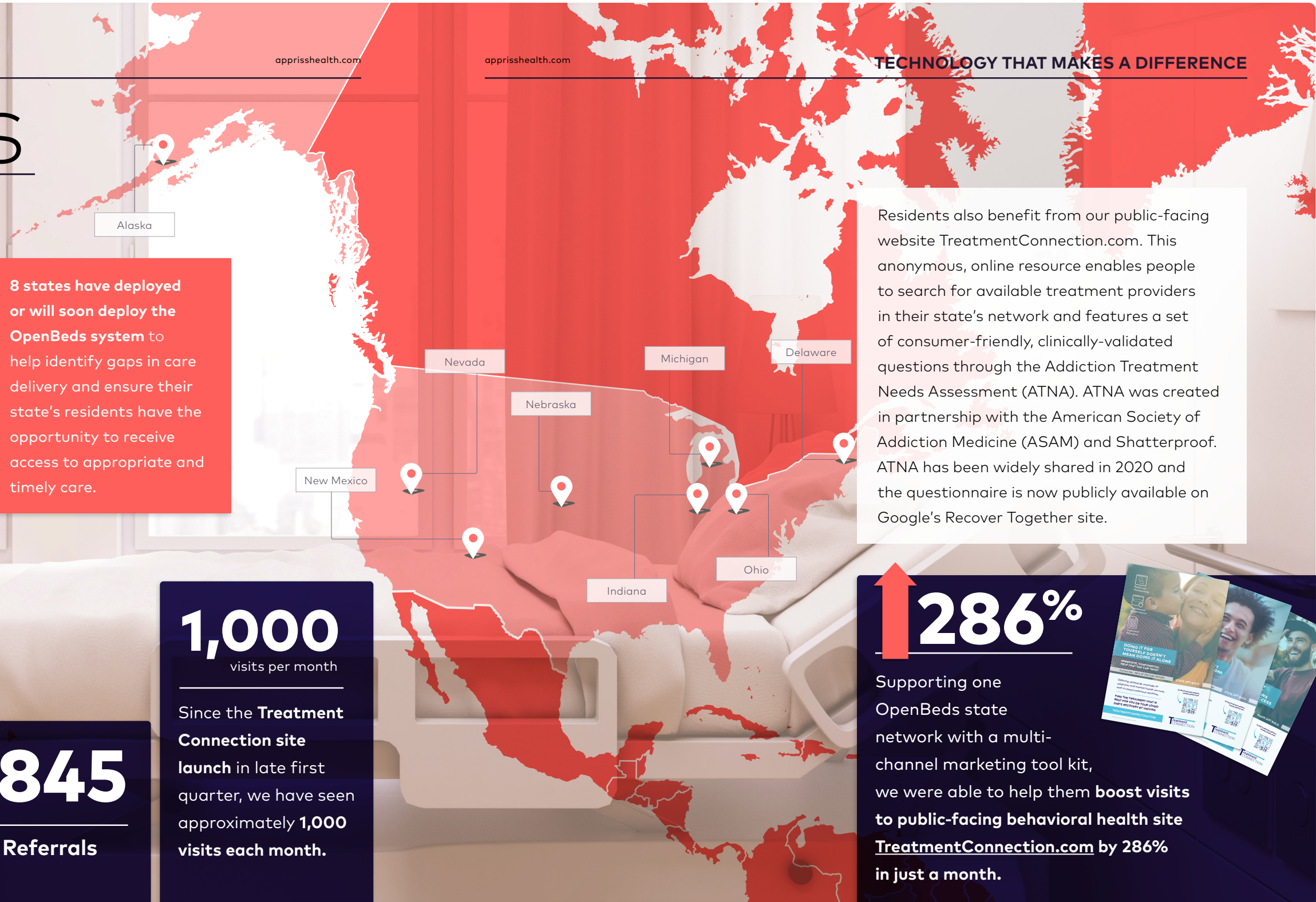
- Sean Miller
Director of Health Informatics, Delaware Health and Social Services

OPENBEDS

The COVID-19 pandemic created a nightmare scenario for those battling mental health and substance use issues. Instability, isolation, and limited access to care have been a trifecta for creating the perfect environment for behavioral health challenges to flourish.

OpenBeds helps health systems, payers and state governments create trusted referral treatment networks that improve support and coordinate care delivery. OpenBeds real-time treatment provider availability, evidence-based therapy offerings, two-way digital provider communication, data aggregation and analytics, and clinical decision support make it a game changer.

8 states have deployed or will soon deploy the OpenBeds system to help identify gaps in care delivery and ensure their state's residents have the opportunity to receive access to appropriate and timely care.



Residents also benefit from our public-facing website TreatmentConnection.com. This anonymous, online resource enables people to search for available treatment providers in their state's network and features a set of consumer-friendly, clinically-validated questions through the Addiction Treatment Needs Assessment (ATNA). ATNA was created in partnership with the American Society of Addiction Medicine (ASAM) and Shatterproof. ATNA has been widely shared in 2020 and the questionnaire is now publicly available on Google's Recover Together site.

336

New OpenBeds state network providers

34,845

OpenBeds Referrals

1,000

visits per month

Since the **Treatment Connection** site launch in late first quarter, we have seen approximately **1,000** visits each month.

286%

Supporting one OpenBeds state network with a multi-channel marketing tool kit, we were able to help them **boost visits to public-facing behavioral health site TreatmentConnection.com by 286% in just a month.**



INNOVATION & EXCELLENCE

ADAPTING TO A CHANGING ENVIRONMENT

We went from a large number of hours each week doing manual reports, multiple phone calls, emails ... to a much more automated streamlined process with the Critical Resource Tracker.

- Kimberly Clement,
MPH, Program Management, Healthcare Preparedness Program, NC Department of Health and Human Services

COVID-19 AND THE CRITICAL RESOURCE TRACKER (CRT)

The COVID-19 pandemic presents states with the challenge and opportunity to support their health systems. One goal of every Department of Health is to enable and ensure the public health of its citizens. North Carolina and Appriss Health joined forces in June to make a significant impact in 2020.

North Carolina needed the ability to manage healthcare resources across participating hospitals and rapidly report relevant data to the CDC and HHS Protect for tracking the response to COVID-19.

Hospitals needed to be able to locate an open ICU bed, PPE, or an available ventilator for a patient.

*We needed to create streamlined communications amongst our 120 hospitals. Establishing CRT in our state opened communications established a culture of cooperation, and ultimately created faith in the data and resources we were collecting. **We went from questioning everything, to working cooperatively and knowing we were doing what was best for our citizens.***

- Charles Carter

Chief Operating Officer for Technology & Operations at North Carolina Department of Health

Ultimately, the goal was to put clinicians back at the bedside and help save lives through the immediacy of automated reporting and data sharing.

CRT BENEFITS - NORTH CAROLINA HOSPITALS

- **2.5 hours saved daily** per hospital from collecting and reporting COVID-19 data
- From **12 support calls per day, down to zero** on hospital reporting
- From **28 support hours per week down to zero** on manual reporting
- **70%** of acute care **hospitals are automating data** to the state and federal government
- Submission of data through a single system in a simple, standardized manner **eliminates subjectivity, making it measurable and comparable**
- **Visibility of available resources** helped the state **identify surpluses, shortages, or gaps** to better manage patients' needs, assess resources, and allocate funding

DEFINING INNOVATION & EXCELLENCE

Appriss Health has a history of innovation and excellence beginning with its 9-month build and delivery of PMP InterConnect to its execution of a market leading solution for the management of behavioral health.

The Substance Abuse and Mental Health Services Administration defines Behavioral Health "as the promotion of mental health, resilience and wellbeing; the treatment of mental and substance use disorders; and the support of those who experience and/or are in recovery from these conditions, along with their families and communities."¹

Like in 2007 when our nation first began experiencing the methamphetamine addiction crisis to the opioid epidemic in 2011 to the year of the pandemic in 2020, our nation is once again seeing a significant rise in addiction and mental health illnesses.

At Appriss Health, we are delivering on our mission through continued innovation.

Today, states view their PDMP as a strategic asset in the war on the behavioral health crisis plaguing our nation.

PDMPs NOW INCORPORATE NEW INFORMATION INCLUDING:

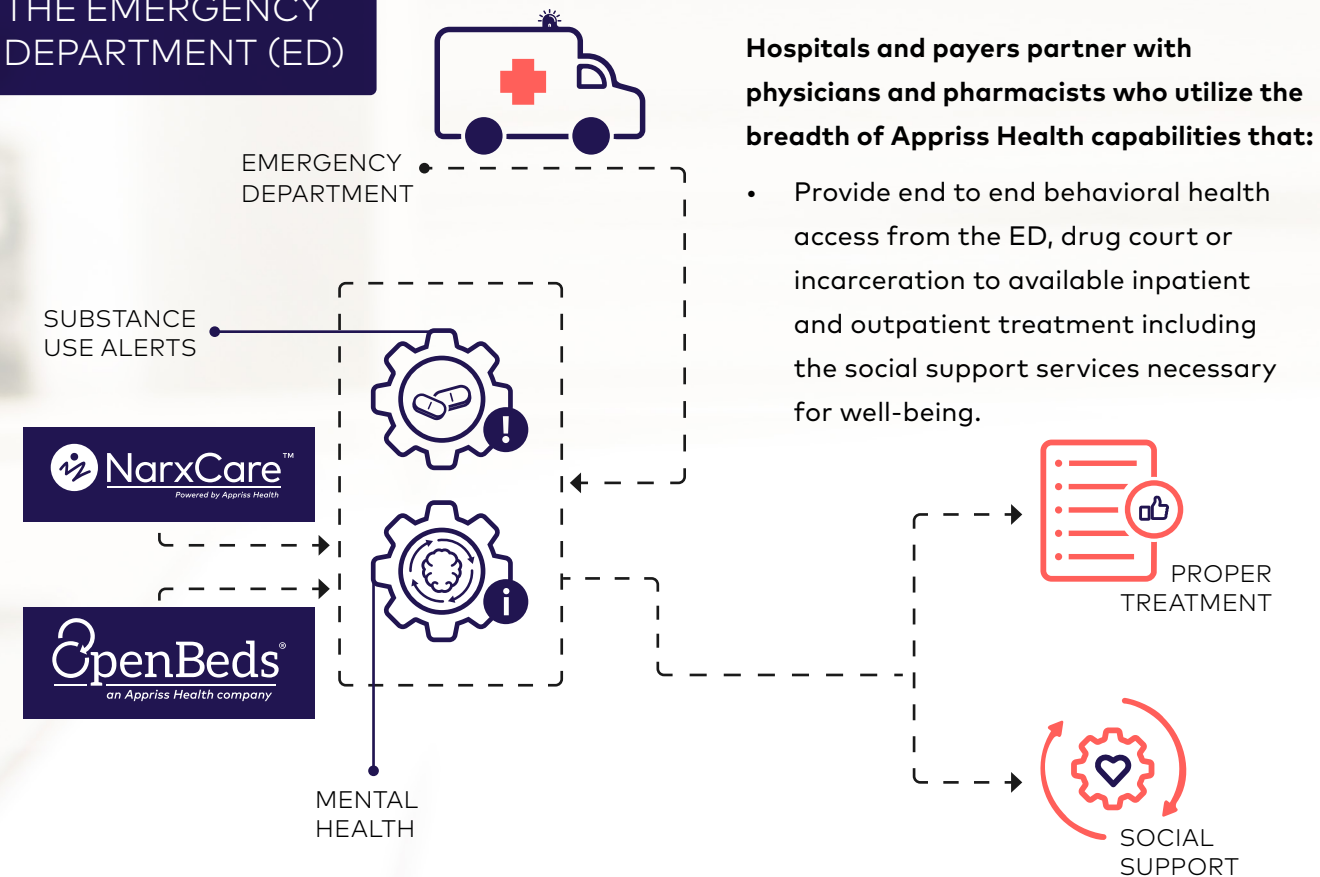
- Overdose history
- Drug court utilization
- Overdose death data

NEW AND SOPHISTICATED ANALYTICS THAT:

- Predict and monitor outlier prescribing behavior
- Alert physicians and pharmacists regarding patient risk and trends with their own prescribing behavior
- Monitor other controlled substances such as medical marijuana
- Monitor manufacturers and distributors of controlled substances

ONE OF MANY USE CASES

THE EMERGENCY DEPARTMENT (ED)



Hospitals and payers partner with physicians and pharmacists who utilize the breadth of Appriss Health capabilities that:

- Provide end to end behavioral health access from the ED, drug court or incarceration to available inpatient and outpatient treatment including the social support services necessary for well-being.

2020 saw the combination of newly sophisticated PDMP platforms with access to available treatment via OpenBeds, creating a powerful solution designed to support a coordinated network of providers dedicated to reducing the number of citizens suffering from behavioral health issues.

"FREE" SOMETIMES COSTS MORE

When you add the costs of acquisition, implementation, operation and improvement to a large IT project, the final figure is your total cost of ownership.

Because Appriss has the benefit of working across 43 states, we keep overall costs much lower than the competition.

For more information and a deeper look at the cost, read our whitepaper at [ApprissHealth.com](https://www.apprisshealth.com).

INVESTING IN CUTTING EDGE STANDARDS

Appriss Health is proud to adhere to the many data integration standards offered throughout the industry. PMP Gateway leverages industry standards such as PMIX/NIEM, NCPDP, ASAP, HL7 v2, and SMART on FHIR to support a wide range of integration methodologies while maintaining compliance with individual state regulations.

SMART MONEY INVESTS IN GATEWAY

Appriss Health supports partners through each step in the process: planning, configuration, rollout, integration, user adoption, support, and continued customer success. Leveraging expertise, shared technology, and employee resources lowers total cost of ownership for the state and its health system and pharmacy users.

COMPETITOR COST OF OWNERSHIP

Value of API connections to 150+ systems	\$1.8M-\$3M
Data warehousing	\$468,000
24/7/365 Support	\$230,000
Information management system	\$144,000
Data architecture design	\$79,663
Product management	\$123,367
Quality assurance.....	\$68,310
ETL design, development, maintenance & support	\$96,000
Data visualization, intelligence & analytics	\$81,865
Documentation & training	\$68,900
Project manager	\$76,115
Communication & marketing.....	\$70,235
TOTAL	\$4,506,455⁺

FOR MORE INFORMATION
PLEASE VISIT **APPRISSHEALTH.COM**



APPRISS[®]
HEALTH