



Whitepaper

A Data-driven Approach to Holistic Virtual Care on a FHIR-enabled Data Activation Platform

Creating a data-founded approach to strategize holistic virtual care delivery and successfully implement care protocols on a virtual care platform.



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Executive Summary

COVID-19 brought about a remarkable shift towards a virtualized care response throughout the country. Amid this, studies¹ estimate that the demand for telehealth will rise by 64.3% in the U.S. in 2020, and the telehealth market is estimated to grow seven-fold by 2025, leading to a five-year compound annual growth rate of 38.2%. As patients are increasingly adopting telehealth over in-office visits, the virtual visits are gradually becoming a part of long-term patient monitoring programs, allowing for virtual check-ins to decrease unplanned hospital visits. This massive adoption has stressed the technical infrastructure of many telehealth providers. As a result, accommodating patient influx remains a challenge for small physician practices and large telehealth providers.

To adapt to caring for their patients virtually, many care organizations settled for the commonly available telehealth solutions to host online consultations between their patients and providers. However, the critical steps to creating the right strategy to meet your healthcare enterprise's virtual care needs include: choosing the right virtual care solution for your organization, designing an implementation plan, simplifying the experience for your patients, and investing in patient relationship management.

In this whitepaper, we understand the following themes:

- How the Data Activation Platform helps providers with each step to build a data-driven, successful virtual care strategy.
- How sustained adoption of the platform and personalized patient engagement allow healthcare practices to grow their revenues from the virtual care practice.
- The “Four-step Winning Virtual Care Strategy” and some of the best practices that providers can employ to succeed in the journey of virtualized care.

A Single Source of Truth for Seamless Care Experience: The Data Activation Platform

Innovaccer's Data Activation Platform is a leading healthcare data platform that enables healthcare organizations to bring disparate data sources together to conduct analytics, derive insights, and then act on those insights through other Innovaccer and third-party applications. It combines advanced big data technologies to manage massive healthcare data volumes and unifies disparate silos of healthcare data together using its built-in connectors and visually-enabled ETL (Extract-Transform-Load) processes.

DAP offers a comprehensive list of data sources to extract data from and can handle a multitude of formats and exchange standards. It has pre-built connectors with 65+ EHRs and 200+ healthcare IT vendors, can run over 15 file formats and 600 data fields, and has 10M+ records in its taxonomy knowledge base. Innovaccer's Data Activation Platform (DAP) can ingest data from disparate sources such as telemedicine, home monitoring, worksite visits, SDoH data, Clinical, Medicaid and Medicare claims, labs, assessments and health plans, through various means of data exchange mechanisms.

Transformed Landscape

Connected Experiences powered by an Integrated Data Platform

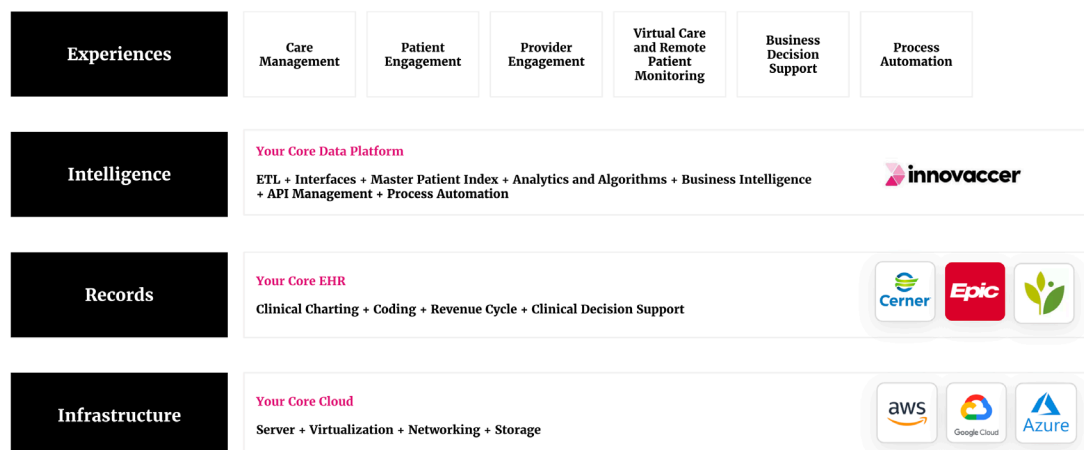


Figure: Connected Experiences powered on an Integrated Data Platform

DAP in Action: Providing a Holistic Virtual Care Network

Innovaccer brings the data and all healthcare stakeholders together and provides them with complete patient information to help them care as one. The Data Activation Platform (DAP) has intelligent workflows powered by unified patient records, advanced analytics, and true interoperability, enabling collaborative healthcare.

The screenshot displays the Innovaccer DAP interface for a patient named Joy Lawson. The interface is organized into a sidebar with navigation options like Home, Schedule, Tasks, Charts, Messages, and Reports. The main content area shows the patient's summary, including demographics (PRN: D/751365, 76 yrs, DOB: 02/01/1943, M: (774) 345-6776) and a list of diagnoses such as (I10) Essential (primary) hypertension and (E11.22) Type 2 diabetes mellitus with diabetic chronic kidney disease. It also lists allergies, medications, and implantable devices. On the right, the Clinical Insights section provides a comprehensive overview of the patient's health, including Quality Gaps (e.g., HgA1c < 9.0, Diabetes Eye Exams), Potential Coding Gaps (e.g., (HCC18) Diabetes with Chronic Complications), Education Opportunities (e.g., High Emergency Department Visits), and Recent Visits (e.g., Dr. Sarah West, Morgan Stanley's Hospital).

Clinical Insights Over EHR

Innovaccer's Virtual Care Network is designed to overlay on top of the physician's EHR without any integration with the EHR. It allows the physicians to consult with their patients and review and chart information into their EHR, all on one screen, offering them an uninterrupted experience as they review their EHR during virtual consultations.

The Virtual Care Network comes equipped with a virtual exam room that allows the physician and the medical team to care as one. This feature allows medical assistants to schedule video visits on behalf of their providers. It also allows medical assistants to see a patient first during a virtual visit and then transfer them to the physician once the physician is ready. This feature is rated very highly by users as it allows them to leverage their regular in-clinic workflows even in virtual visits.

DAP's vast exposure in integrating data from 65+ EHR sources allows it to incorporate the Virtual Care Network with the healthcare organizations' deployed EHR. This is particularly useful in scheduling virtual visits on the existing practice management system/EHR, seamlessly importing the appointments into the Virtual Care Network, and exporting notes created during virtual visits back into the EHR.

Innovaccer offers custom APIs (via the InAPI platform) using which transformed high quality integrated data can be made available to customers for export through our library of pre-built APIs. Customers can access the data via RESTful API calls in XML / JSON format. Innovaccer's InAPI (Built on top of the Data Activation Platform) drives interoperability by managing cross-system and cross-vendor connectivity through custom APIs and integrations.

The Virtual Care Network solution allows sending outreach to patients individually or in bulk via an uploaded spreadsheet with patient contact information. Before the outreach, the tool validates patient information to ensure contact information is free of duplicates and formatted correctly. Patients can be sent assessments related to COVID-19, SDoH, and health risk assessments, and later be triaged based on the risk-stratified results based on the type of survey being sent. For the COVID-19 assessments, patients can also be directed to CDC resources related to COVID-19 based on their infection risk. Providers can initiate scheduling of virtual visits directly from assessment results to streamline the follow-up process.

Assessment Type	Responses	Last Modified
COVID-19 Assessment	8.81K	Last modified by Mohan, Roy at 03:23 PM, 29 Mar 2020
Health Risk Assessment	659	Last modified by Lily, Mcleigh at 10:46 AM, 12 Mar 2020
Social Determinants of Health	2.73K	Last modified by Mohan, Roy at 12:11 PM, 01 Jan 2020

Built-in Assessments

Outreach	Sent on	Sent by	Recipients	Status
COVID-19 Assessment	Apr 4, 2020	John Doe	396	Sent • 71%
COVID-19 Assessment	Apr 1, 2020	John Doe	654	Sent • 83%
COVID-19 Assessment	Mar 29, 2020	John Doe	373	Sent • 91%
COVID-19 Assessment	Mar 24, 2020	John Doe	538	Sent • 93%
HRA Assessment	Mar 11, 2020	John Doe	895	Failed

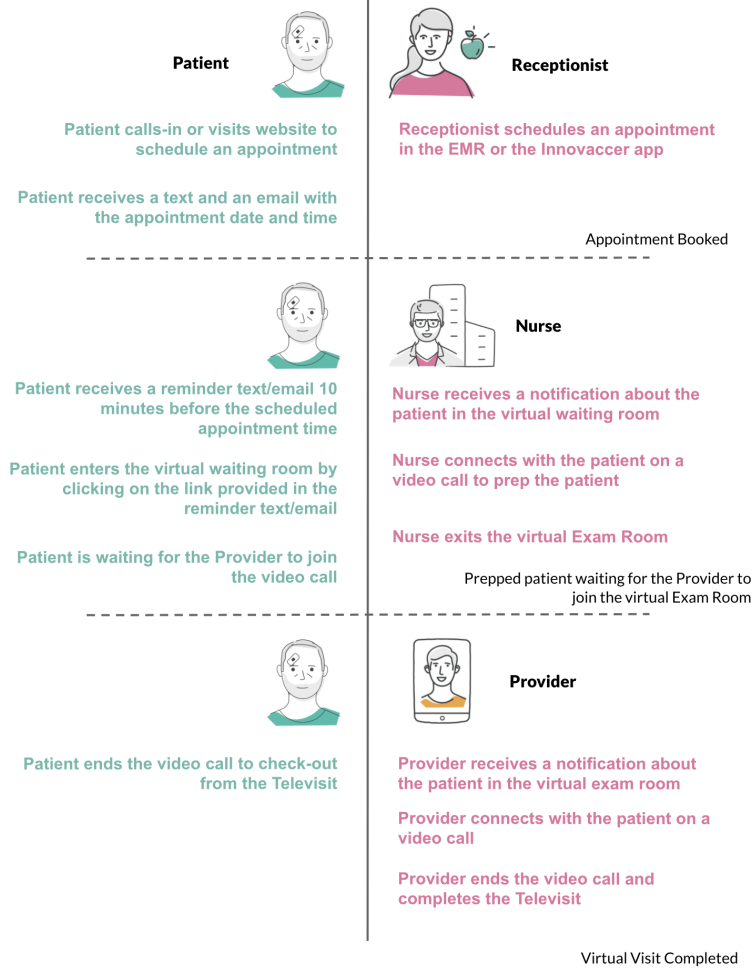
Assessment Outreach Enabled through the Solution

Creating a successful virtual care strategy with a FHIR-enabled Data Activation Platform

Innovaccer's Virtual Care Network (VCN) allows healthcare professionals to provide virtual care to patients over HD quality audio/video calling, targeted and bulk patient outreach, remote assessments, and risk-based triaging. The solution is designed to transform the way providers connect with their patients in the virtual space. Some key highlights of the solution are:

- The solution mimics the workflow of an on-site patient visit, just in a virtual setting.
- Patients land in a virtual waiting room with the ability for virtual handoffs between staff members and providers.
- The solution has a multi-party calling feature for all care team members to be on the same virtual call with the patient and his/her family members.
- The VCN solution includes a "Digital Front Door" for the patients to request appointments and make co-payments.
- The solution helps create a patient registry with filters to identify the patients of interest and send them bulk outreach messages.
- The Virtual Care Network solution has near real-time dashboards for reports on daily telehealth visits.

Innovaccer Virtual Care Workflow



Assessment Outreach
Enabled through the
Solution

Innovaccer's Virtual Care Network works on three key products:

InNote Assistant

Point-of-care application for providers and provider staff to conduct virtual calls.

InOffice

Portal for administrators for dashboards, reporting, and user management.

InConnect

Mobile app for patient engagement.

Let's understand the detailed functionalities of the solution with quick insights into the constituent products, dedicated and designed to create a holistic virtual care experience for the care providers and their patients

Key Highlights of InNote

InNote Assistant is a point-of-care application that provides physicians and their staff an unobtrusive way to conduct telemedicine calls with patients. It is overlaid on top of the EMR to offer a seamless experience to the users. It can support up to 10 concurrent users on one telemedicine call.

InNote Assistant is a SaaS application available on the following platforms:

- As a desktop application on Windows and Mac OS.
- As an app on iOS and Android mobile devices.
- As a web application in a web browser on any device.

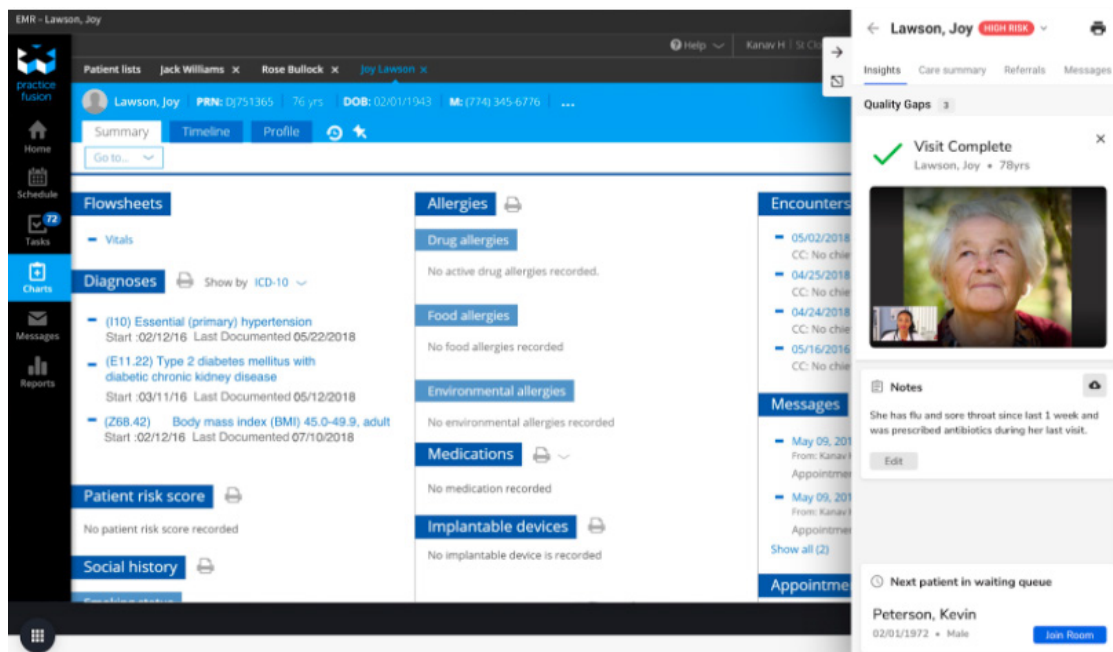


Figure: InNote Window

Key Highlights of InOffice

InOffice is a web portal for executives, administrators and providers to track patients, see assessment results, send bulk outreach messages, check the virtual care insights dashboard, and perform user management.

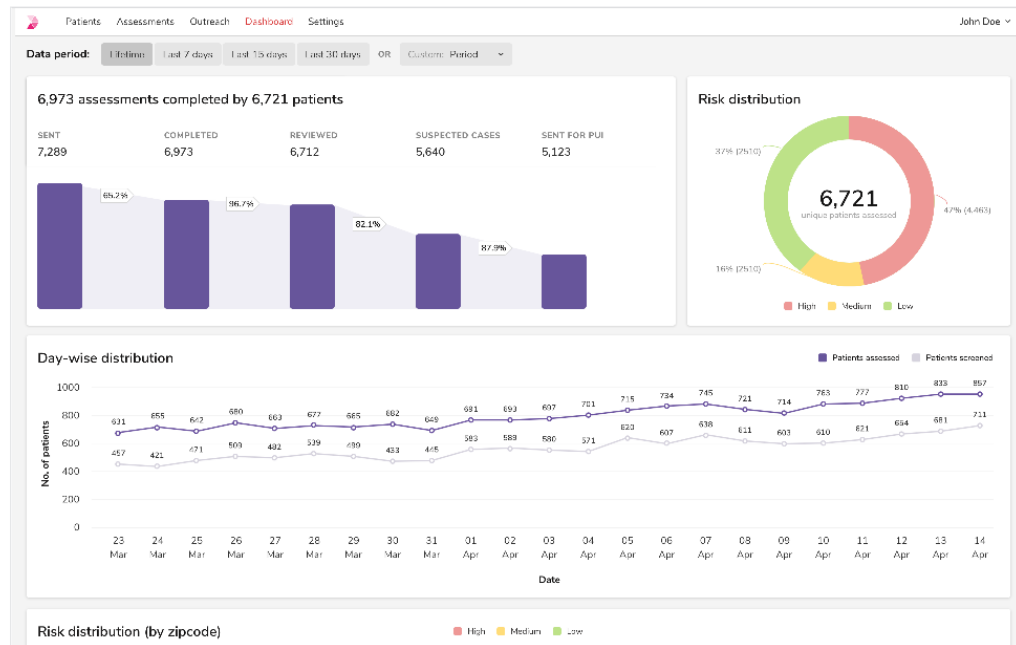


Figure: InOffice Window

Key Highlights of InConnect

InConnect mobile app, available on iOS and Android, empowers patients to request virtual visits with providers, track past and upcoming appointments, make co-payments, connect on an HD video call with providers, and chat messaging with providers.

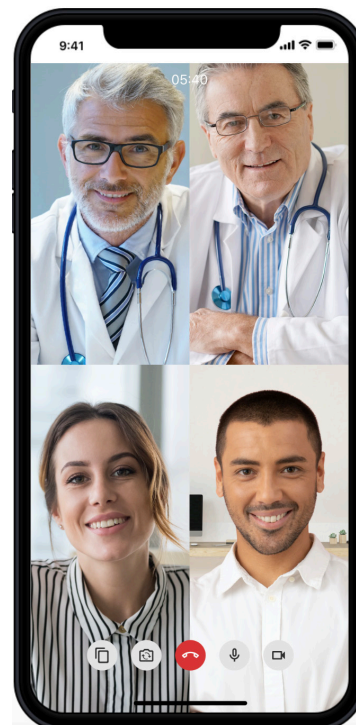


Figure: InConnect Window

The Virtual Care Solution in Detail

Innovaccer's Virtual Care Network helps healthcare organizations provide immediate assistance to patients through remote assessments, risk-based triaging, virtual care, education, automated outreach, and guidance. The solution is designed to transform the way providers connect with their patients and help organizations make online consultations for their patients as simple as actual visits.

VCN also allows the support staff to streamline their workflow, send out bulk messages, enable outreach capabilities and take quick follow-ups on the telemedicine consultations with secure messaging to improve patient engagement. Providers can get detailed analyses of call logs, durations, and notes at their fingertips and leverage robust analytics to analyze their practice patterns and identify growth opportunities.

Innovaccer provides the following vital services as a part of the Virtual Care Solution, post discussion with stakeholders in the healthcare organization:



Telemedicine
desktop
application



Co-built "Chat with
us" feature



EHR and
Scheduling Data
Integration



Patient Command
Center



Bulk outreach
messaging



Online Assessment
with Risk
Stratification



User training



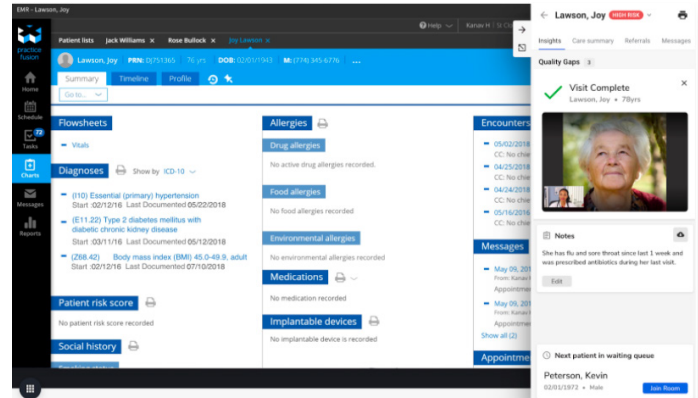
Post-deployment
maintenance and
support



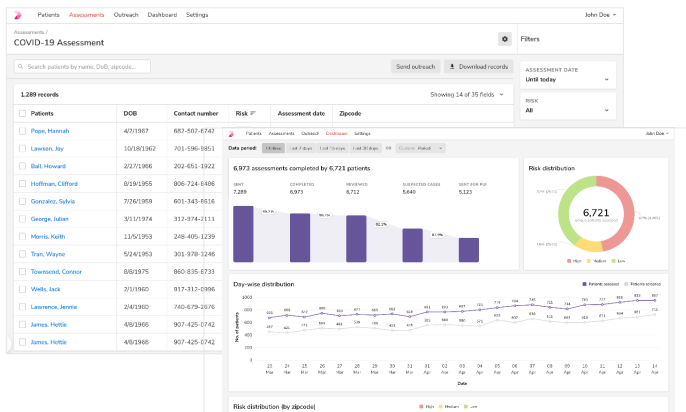
End-to-end Project
Management

Telemedicine

- Works on top of EHR
- Group calling for up to 10 users
- EHR Agnostic
- Text message, email, or mobile app to initiate a virtual visit
- Operates on PC, MAC, Android, iOS



'Chart as you consult' feature to help you maintain the most comprehensive clinical documentation



Patient and Provider Analytics

Command Center

- Track telemedicine visits and assessments
- Monitor patient status over time

Bulk Patient Outreach

- Text or email with your patients or family members
- Send out assessments

Search patients by name, DoB...

73% patients engaged

27% patients didn't engage

179 patients

Patients	Gender	DOB	Contact number	Zipcode	Status
Pope, Hannah	Male	4/2/1967	682-502-6742	51230	Delivery Failed
Lawson, Joy	Female	10/18/1962	701-596-9851	51230	Skipped, Invalid number

Patient Outreach Feature

User Control

- Invite new users by email
- Select their role
- Associate them to a practice or facility
- Control Admin Permissions

Users

Current Invited Inactive

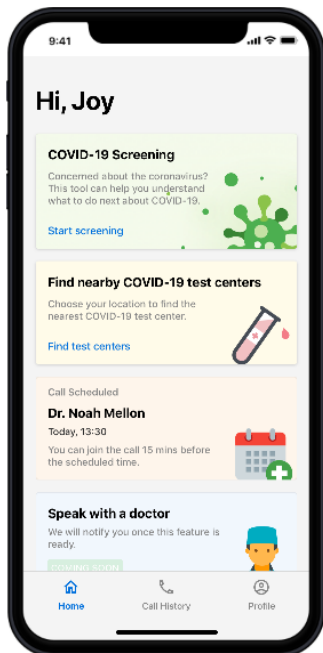
Invite your teammates

Email	Phone number	Title	First name	Last name	Role	Practice	Admin
<input type="text"/>	<input type="text" value="(555) 123-4567"/>	<input type="text" value="Select"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="Select"/>	<input type="text" value="Select"/>	<input type="text" value="No"/>
Add another							

Role: Practice Manager, Staff, Provider

[Send Invite](#)

User Controls



Patient Application

Patient App

- Mobile Application
- Connect with Care Team
- COVID-19 Screening
- Telemedicine Visits

Why is Innovaccer's Virtual Care Network Better than the Rest?

Some of the key differentiators and essential features of our VCN solution are as follows:

1. Both providers and patients can use a web browser to do the video call without a download.
2. Staff members can do pre-screening and follow-up video calls with patients.
3. Patients can request an appointment and initiate a chat session with the staff members to book an appointment from the Digital Front Door and the optional patient app.
4. We run insurance verification and co-payment calculation before a patient joins a video call.
5. Secure chat, text (SMS), email, voice, and video for synchronous and asynchronous communication with patients is available.
6. Patients receive automated reminder messages before the scheduled appointment time.
7. The solution also includes a patient outreach module so you can send outreach messages to patients as texts or emails in bulk.
8. Our partner team engages with EMR vendors in all EMR integration cases with our platform, and care organizations will not be required to engage in such activities.
9. We also offer a voice call visit from within our application (SIP integration). The provider would use our app to make a telephone-only call from a recognizable phone number.
10. Some essential features, i.e. Contactless check-in, Appointment cancelation, rescheduling of appointment, and patient information updates, are embedded in the solution.
11. We offer custom branding, a dedicated application for providers, and personalized waiting room for patients. Providers or care staff can run patient outreach campaigns and send customized text messages and/or emails to stratified patients.

12. When patients join the call, they land in a personalized waiting room landing page.
13. Analytics include dashboards on virtual visits scheduled/completed by the provider, time spent on visits, assessments taken, assessments' results, patient registry, virtual visits registry, etc.
14. Staff members at a practice share the room so they can manage and route incoming patients.
15. Patients can request an appointment or initiate a chat session with a staff member to book an appointment.
16. The solution offers workflows for walk-in and scheduled virtual appointments.
17. Multi-way conferencing includes scribe, care staff, family members, translator, et al., to a video call between patients and providers.
18. Multi-way conferencing between up to ten concurrent users.
19. Patients can download an optional patient app to manage scheduled appointments, chat message providers, take assessments, and see results.
20. The Provider application is available on the following platforms:
 - Microsoft Windows
 - Apple Mac OS
 - Google Android
 - Apple iOS
 - Web browser

Four-step Winning Virtual Care Strategy : Choosing the right virtual care solution for your organization

A virtual care solution must be analyzed comprehensively from a patient's perspective and a provider to make the transition seamless for both parties. Innovaccer's virtual care solution delivers an array of offerings created to empower providers and patients with simple and secure virtual assistance and telehealth features. It is designed to fit into the clinician's workflow and adds a novel point-of-care experience to help save time during the virtual visits. It offers an uninterrupted virtual consultation experience for physicians, from the chart review into the patient's EHR with workflows designed to facilitate coordinated care with features such as virtual waiting rooms.

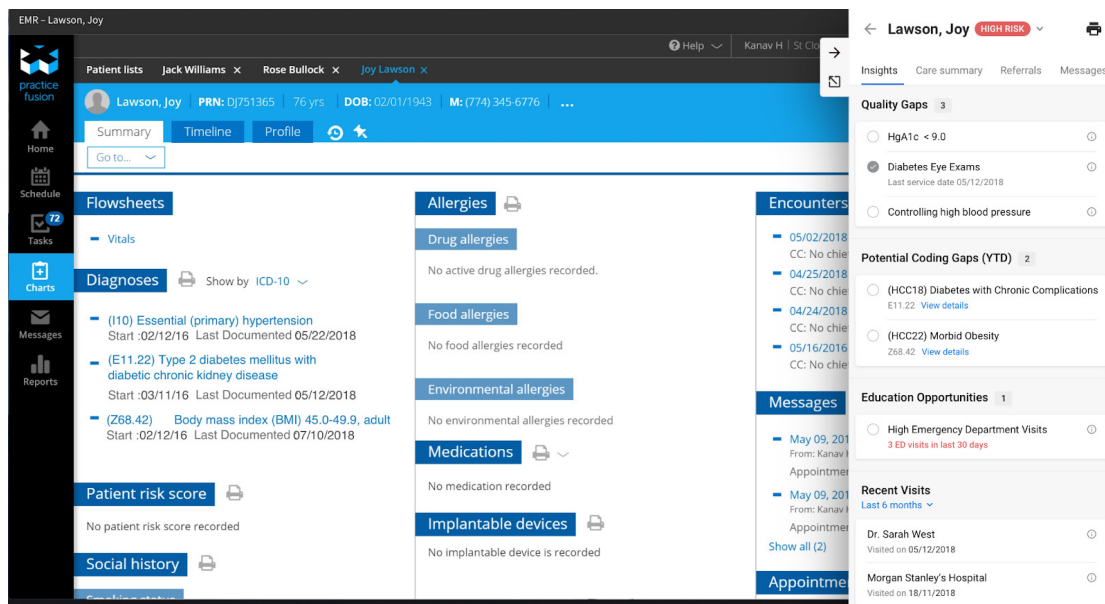


Figure: Integrated Virtual Visits in Provider Workflows

The framework's EHR-agnostic, FHIR-interoperable and HIPAA-compliant structure makes it a future-ready tool for enhanced care delivery. This solution is designed to work with any EHR, without the requirement of any integration. It is curated for healthcare with six layers of security, HIPAA-compliant video and text and end-to-end encryption. It integrates with provider EMR and PMS systems using FHIR standards to facilitate scheduling and data sharing. Making the virtual care delivery comfortable for providers, the solution is multiscreen compatible and seamlessly works across all devices including laptop, mobile or iPad.

To coordinate care and leverage outreach, Innovaccer's Virtual Care Network disseminates helpful guides to address patients, identifying needs and social barriers. The solution simplifies triaging by prioritizing patient care based on symptom assessment. It provides healthcare professionals with the ability to care as one and helps in building successful health outcomes by improving each step in the patients' healthcare journey.

For large enterprises, it empowers providers to personalize the solution to their enterprise's needs by managing access controls, personalizing their messaging and providing them with robust, actionable insights to improve their clinical and financial outcomes.

Designing an implementation process for enterprises

As virtual care becomes the new normal for healthcare organizations, providers must have assistance in navigating the world of telehealth. In the case of large healthcare enterprises, with millions of associated patient lives and thousands of providers, going live with a telehealth solution on the organizational level can be challenging.

Innovaccer's virtual care solution comes equipped with an implementation playbook that is carefully designed to deliver successful adoption across the network of providers. Before taking the first set of users live with the virtual care solution extensive user testing is done. It offers speedy issue resolution, particularly in the testing phase so that the implementation is error-free and successful.

After taking the first set of users live, the solution is expanded across all users. Innovaccer's solution helps the enterprise in monitoring their telehealth usage, identifying and minimizing the variance in provider adoption throughout the organization.

Simplifying experience for your patients

Patient experience is one of the most crucial checkpoints for a successful virtual care solution. Moving out of traditional, in-person visits, patients need to be cared for with equal or greater comfort on virtual platforms. In a recent survey², 38% of patients liked the idea of receiving potential diagnosis without being around other sick people in a traditional waiting room. The survey also found that 36% of respondents preferred appointments without commuting to the clinic, and an additional 12% of people found the ability to schedule same-day care appealing.

While convenience is a factor supporting the virtual care solution in the long-run, other features can encourage the patients to adapt to these solutions. Innovaccer's virtual care solution eliminates the need to download an application to receive quality virtual care. It provides patients with instructions in the virtual waiting rooms to smoothen their transition to the solution, and masks voice calls to significantly reduce the call failure rates.

Through smart summaries and continuous data feeds on clinical insights, the solution assists care managers in synchronizing care. It also helps providers in adding value to care through real-time visibility of patient status, from the comfort of their home or office.

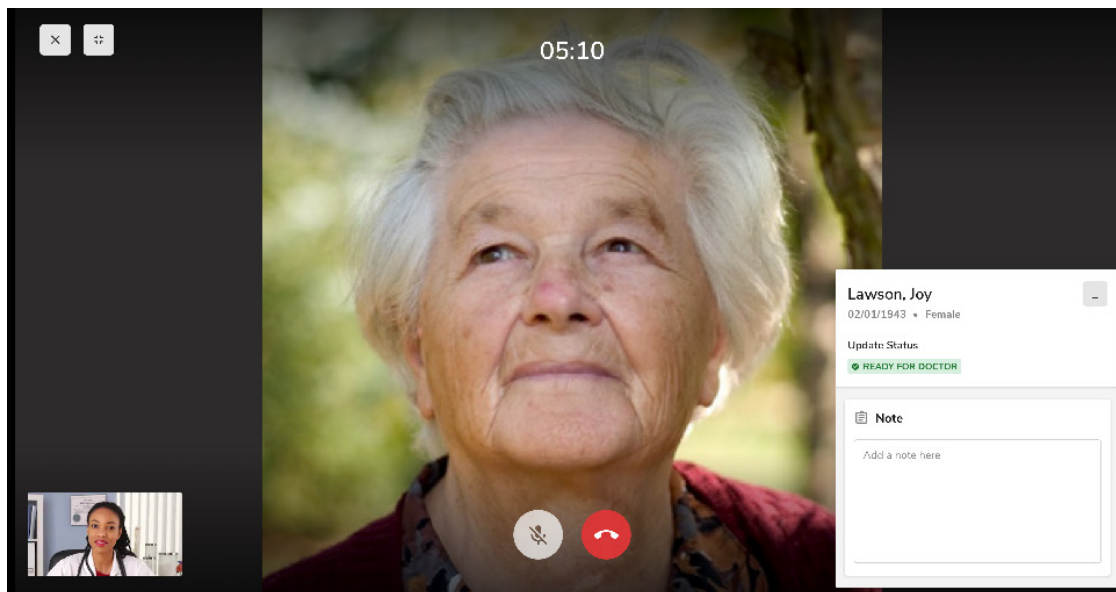


Figure: Virtual Visits with in-built provider notes

Investing in Patient CRM

Integrating customer relationship management with virtual care solutions is equally important for healthcare providers as they take the leap to the new normal of e-consultation. A typical healthcare CRM consists of a communication module, task management module and report module.

CRMs in healthcare are traditionally known for personalizing the patient experience, reducing wait times, providing post-discharge support, eliminating administrative errors, and facilitating patient-provider communication.

Innovaccer's virtual care solution is founded on a connected care framework across the continuum of care that streamlines patient data from health plans, hospitals, pharmacies, primary care/specialist providers, hospitals and multiple sources. It provides analytical insights that assist healthcare providers in supporting the patient throughout their healthcare experience

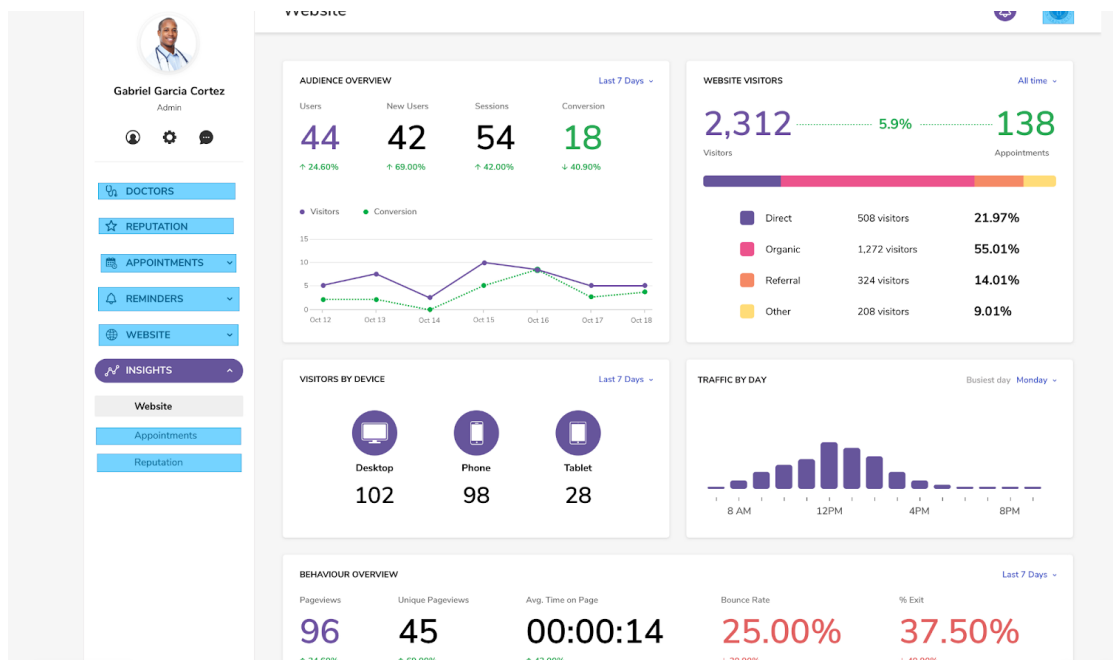


Figure: Analytical Insights on Virtual Care Utilization

The solution has a robust care management module that facilitates automation in scheduling, follow up and sending bulk assessments. It simplifies reporting and bill payment requests, and assists the providers in tracking practice performance, identifying revenue growth opportunities and enhancing overall productivity..

Improving Holistic Virtual Care Delivery with FHIR-enabled Data Activation Platform

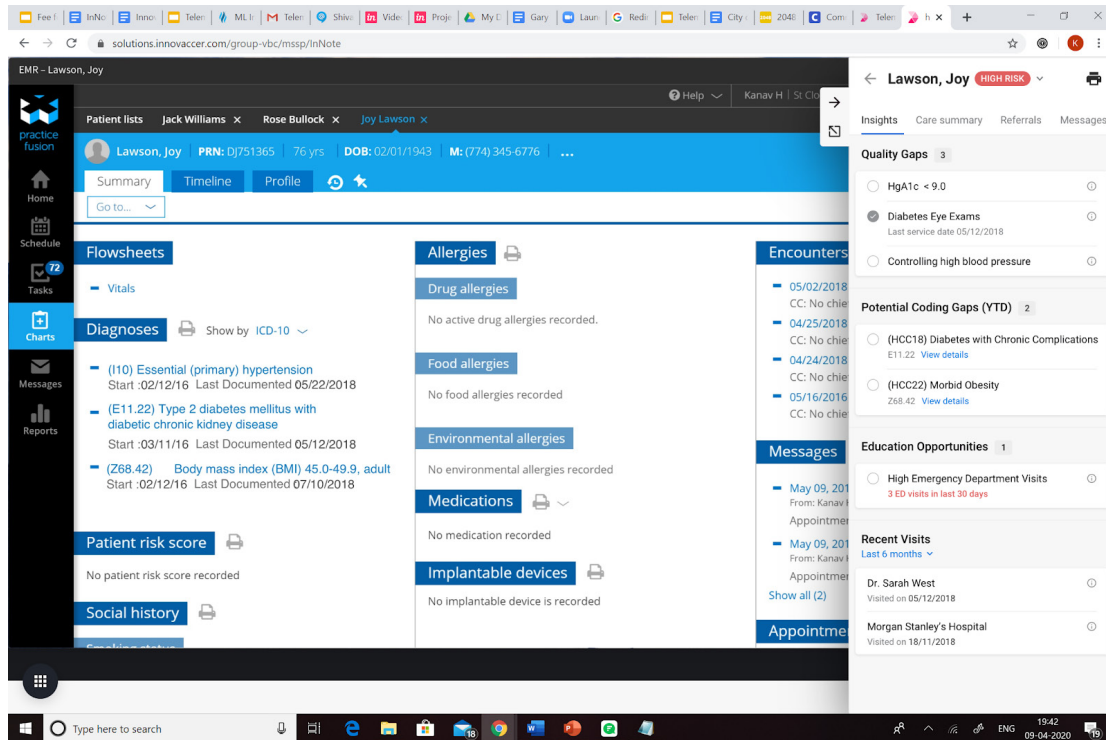


Figure: Care Management Module for Virtual Care Network

The FHIR®-enabled Data Activation Platform allows providers access to care insights and enables priority actions that they cannot take using their EHRs alone. It offers an in-workflow approach to enable cost-effective care delivery at the point of care without any EHR integration dependencies. With this platform, providers have the resources that enable them to improve clinical outcomes and boost the overall network performance.



Innovaccer's advanced healthcare data integration engine, providing one-click interfacing mechanisms to a wide array of healthcare data systems and a seamless bidirectional flow of data.



Smart, AI-assisted care management solution, with patient-centered medical home (PCMH) level care delivery, hardcoded into the workflow. InCare streamlines the care management process enabling systems to scale care management programs at lower costs, and with higher quality.



InGraph is the most intuitive healthcare analytics offering for population management health strategies in the industry. It has over 800+ measures to track network performance and outcomes, customizable measures and dashboards accessible across the network, and automated reporting on quality measures.



A smart, lightweight physician's digital assistant that surfaces critical system and population health insights derived from multiple data sources, at the point of care. Using InNote, insights such as care gaps, dropped codes, process measures and referrals information can be shared with the clinician – without having to leave the EHR experience.



An automated analytics-driven patient engagement solution to scale patient outreach workflow and bring patients closer to the care team.

About Innovaccer

Innovaccer, Inc. is a leading San Francisco-based healthcare technology company committed to making a powerful and enduring difference in the way care is delivered. The company leverages artificial intelligence and analytics to automate routine workflows and reduce manual overhead to facilitate more person-centered care. Its KLAS-recognized products have been deployed all over the U.S. across more than 1,000 locations, enabling more than 37,000 providers to transform care delivery and work collaboratively with payers. Innovaccer's FHIR-enabled Data Activation Platform has been successfully implemented with healthcare institutions, private health plans, and government organizations. By using the connected care framework, Innovaccer has unified records for more than 24 million members and generated more than \$600M in savings.

For more information, please visit innovaccer.com.

References

1. **Telehealth to Experience Massive Growth with COVID-19 Pandemic, Says Frost & Sullivan**
<https://ww2.frost.com/news/press-releases/telehealth-to-experience-massive-growth-with-covid-19-pandemic-says-frost-sullivan/>
2. **Survey: Americans' perceptions of telehealth in the COVID-19 era**
<https://www.healthcareitnews.com/news/survey-americans-perceptions-telehealth-covid-19-era>
3. **Virtual Care on FHIR-enabled Data Activation Platform**
<https://innovaccer.com/resources/whitepaper/virtual-care/>



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