

Over recent years, there has been a shift in healthcare reimbursement from fee-for-service to Value-Based Care models (VBC). VBC challenges the traditional model whereby healthcare providers are reimbursed based on the number of diagnoses made or services provided, by proposing payment based on the performance and value delivered. The more healthcare professionals (HCPs) provide care that improves their patients' outcomes, the more they are remunerated.

VBC is based on the quality of care, rather than the quantity, and at its core, it aims to achieve the "Triple Aim of healthcare systems":

- Provide better care to individuals.
- Improve population health management strategies.
- Reduce healthcare costs.

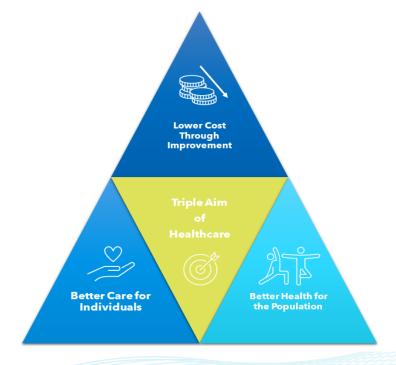
This transition makes even more sense in today's healthcare ecosystem as providers feel burnout, costs continue to rise, and quantity and quality of care are regularly mismatched. After several years of experimentation within the U.S. through specific programs, Value-Based Care generated positive economic outcomes. As of

2020, Accountable Care Organizations (ACO) have saved Medicare nearly \$1.7 million in gross savings and more than \$835 million in net savings. The Center for Medicare & Medicaid Services (CMS) expects all traditional Medicare beneficiaries to be treated by a provider in the Value-Based Care model by 2030.

#### What Brings Digital Health to Value-Based Care?

To get reimbursed, providers must report to payors specific quality improvement metrics, such as reductions in emergency room (ER) visits and hospitalization rates, as well as improved utilization of preventive care. The digitalization of healthcare accelerates this move into that direction. Digital health technologies such as Electronic Health Records (EHRs), Electronic Patient Reported Outcomes (e-PROs), Digital Therapeutics (DTx), and connected devices (blood pressure monitors, smart watches, personal electrocardiograms) help care teams and providers to track and measure what they deliver.

Patient engagement is key to the success of VBC. This is especially true for patients facing



chronic conditions. How to motivate them? How to ensure they are informed, confident, and skilled enough to manage their treatment? Once patients leave the hospital, how to guarantee that they will behave as required? These answers are hard to anticipate, as each patient is unique and may behave in unexpected ways.

With digital health technologies, healthcare professionals can gain a better insight into their patients' behavior outside the clinic, thanks to the following features:

- Remote Monitoring: Remote monitoring is a software solution that records and shares any information entered by patients to their care team. Information can include vital data recorded by connected devices (heart rate, blood pressure, body temperature...), physical activity, sleep quality, symptoms experienced, and medication taken. Remote monitoring provides real-time data on a patient's condition, enabling physicians to get an overview of their patients' state of health without having to contact them or ask them to come to the hospital.
- Medication management: Mobile digital health apps can support patients in tracking their medications and doses, setting reminders, and receiving alerts for prescription refills, which can help improve their medication adherence.
- Education and resources: Providing information to patients about their condition, treatment options and associated adverse events, and lifestyle modifications can help increase their autonomy and disease understanding.
- Symptom monitoring and management:

Recording and monitoring symptoms experienced by patients by sending medical recommendations on how to alleviate them through an app, thanks to clinically approved algorithms built on international scientific guidelines. For example, in the case of diarrhea, the algorithm can recommend that patients follow a specific diet for several days to alleviate their symptoms.

«With digital, healthcare providers can gain a better insight into their patients' behavior outside the clinic»

As part of Value-Based Care, digital health solutions generate data, demonstrate the positive impact of clinical intervention, and support the achievement of the objectives set out in the treatment plan. Evidence generation is seamless when the digital health tool is integrated with clinical software such as EHR systems, which over 90% of US hospitals use today. To achieve this, interoperability is essential to ensure their adoption and alleviate providers' workload by centralizing all health information on a single platform they use every day.

#### What Are the Opportunities for Life Science Companies?

For decades, the healthcare system valued a fee-for-service model focusing on curation rather than prevention. In a tense economic

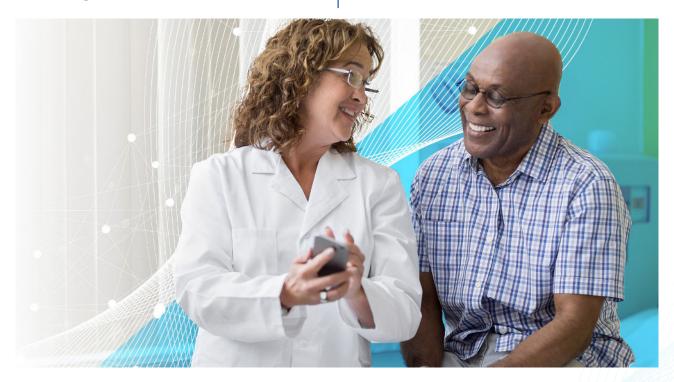
context, the transition to Value-Based Care is an opportunity for the pharma industry. Under increased scrutiny from healthcare authorities and payers, being able to demonstrate value for patients at scale is becoming pivotal for product approval, reimbursement, and adoption. VBC is an opportunity to open additional revenue streams as innovative therapies meet better and measurable health outcomes.

Over time, drugs with favorable VBC profiles will create strong barriers to competition and ultimately consolidate or increase their market footprint. Beyond drugs, VBC is pushing the industry to rethink the drug development process and to reimagine how to deliver effective therapies along with a set of targeted, and value-added services.

For example, patients suffering from asthma will feel more confident knowing that their treatment is properly taken. By using an inhaler connected to a mobile app, patients are instantly informed if a failure happens with a sound, a light, or a notification.

This real-time feedback guides patients along their treatment journey, improving their confidence and decreasing stress. Allowing patients to take their treatment under favorable conditions enhances their experience and adherence to the treatment.

Finally, the VBC model strengthens the relationship between pharma companies, payors, and providers. To benefit from reimbursements, all must work together to achieve the same objective: providing better care to individuals. The relationship is centered around the patient, and everyone has a role to play. Pharma companies provide digitally augmented and personalized medicine, payors make them available to the greatest possible number of people, and HCPs provide them to the right patient at the right time. VBC aligns pharma companies, payors and providers around the patient driving behavior change through tailored experience and improving patients' quality of life as well as clinical and economic outcomes.

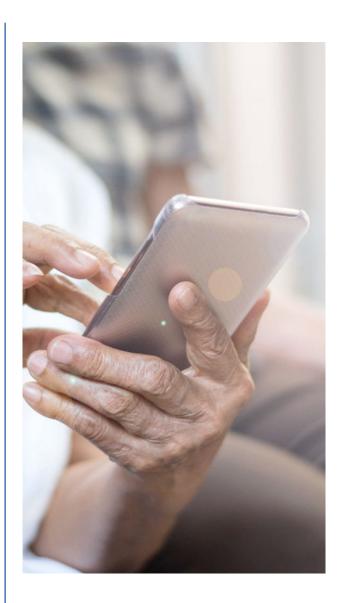


#### Conclusion

Value-Based Care is gaining traction globally, supported by rising healthcare costs and a strong desire to improve patients and healthcare professionals experience.

For now, the VBC transition is mostly driven by public institutions such as the HHS, which is pushing for new payment models and pressuring providers to participate in Value-Based Care programs. Moreover, the CMS has the goal to tie all Medicare payments to VBC in the next 10 years, which would cover 64 million Americans under this reimbursement model.

The digitalization of healthcare has its role to play in this transition, as achieving VBC is impossible without a combination of drug therapy and digital assets. In this framework, digital health solutions can play a pivotal role in building evidence for VBC in real-world settings and address the future challenges that healthcare will face.



#### About Aptar Digital Health

Aptar Digital Health creates end-to-end solutions to enhance patient experiences every day, leveraging a holistic ecosystem of digital interventions. Amplified by an industry-leading portfolio of products and solutions, Aptar Digital Health's offerings combine mobile and web apps, connected drug delivery systems, onboarding, training and advanced data analytics services to actively empower patients and create a positive treatment journey.

Aptar Pharma's Digital Health division is part of Aptar Group, Inc., a global leader in drug and consumer product dosing, dispensing and protection technologies.



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<sup>4.</sup> https://revcycleintelligence.com/features/what-is-value-based-care-what-it-means-for-providers

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