

# PRIMARY CARE

*for the*

# 21<sup>ST</sup> CENTURY



TECHNOLOGY-ENABLED  
AND ON-DEMAND



MARKET SCAN REPORT



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# TABLE OF CONTENTS

|  |           |
|--|-----------|
| <b>EXECUTIVE SUMMARY</b>                               | <b>8</b>  |
| Key Takeaways .....                                    | 9         |
| <b>THE PRIMARY CARE SYSTEM IN FREEFALL</b>             | <b>10</b> |
| An Alternative - Retail and Urgent Care Clinics .....  | 11        |
| <b>THE PRIMARY CARE EVOLUTION</b>                      | <b>14</b> |
| Solution Types .....                                   | 14        |
| Telehealth.....  | 14        |
| AI Assistants, Chatbots, and Symptom Checkers .....    | 15        |
| Future Impact on Primary Care .....                    | 15        |
| Access.....  | 15        |
| Burden .....   | 15        |
| Cost.....  | 15        |
| <b>ENABLING PRIMARY CARE THROUGH TECHNOLOGY</b>        | <b>16</b> |
| Telehealth .....                                       | 16        |
| Major Players and Vendors to Watch.....                | 18        |
| AMERICAN WELL .....                                    | 18        |
| CERNER .....   | 19        |
| EPIC .....   | 19        |
| MEDOCITY .....   | 20        |
| Virtual Care and Remote Care Platforms .....           | 21        |
| Major Players and Vendors to Watch.....                | 23        |
| ORION HEALTH .....                                     | 23        |
| PHILIPS .....  | 23        |
| Special Focus: Virtual Care in Behavioral Health ..... | 24        |
| Vendors to Watch .....                                 | 25        |
| NEUROFLOW.....   | 25        |
| SILVERCLOUD HEALTH .....                               | 25        |



AI Assistants, Symptom Checkers, Chatbots.....26

    Major Players and Vendors to Watch.....27

        ADA HEALTH ..... 28

        BRIGHT.MD ..... 28

        AIVA HEALTH ..... 29

**LOOKING TO THE FUTURE 31**

    Key Conclusions.....31

**ABOUT THE AUTHOR 32**



# TABLES AND FIGURES

|  |               |
|--|---------------|
| <b>EXECUTIVE SUMMARY</b>   | <b>8</b>      |
| Figure 1: Healthcare Burden Largely Falls to Primary Care Setting .....                    | 8             |
| <br><b>THE PRIMARY CARE SYSTEM IN FREEFALL</b>   | <br><b>10</b> |
| Figure 2: Use of Provider Time in Primary Care (U.S.) .....                                | 10            |
| Table 1: Primary Care Access in the United States.....                                     | 10            |
| Figure 3: Walmart Health Primary Care Pricing .....  | 12            |
| Table 2: Effect of Retail and Urgent Care Clinics on Primary Care .....                    | 12            |
| <br><b>THE PRIMARY CARE EVOLUTION</b>  | <br><b>14</b> |
| <br><b>ENABLING PRIMARY CARE THROUGH TECHNOLOGY</b>  | <br><b>16</b> |
| Table 3: Effects of Telehealth on Primary Care .....                                       | 16            |
| Figure 4: Telemedicine Use in 2017.....  | 17            |
| Figure 5: Percent of Telehealth Claims Produced by Age Group (2017) .....                  | 17            |
| Figure 6: Chronic Conditions and Healthcare Spending .....                                 | 21            |
| Table 4: Effects of Virtual and Remote Care Platforms on Primary Care.....                 | 22            |
| Table 5: Primary Care First Clinical Measures .....  | 22            |
| Figure 7: Symptom Checker Performance.....   | 26            |
| Table 6: Effects of AI Assistants, Symptom Checkers,<br>and Chatbots on Primary Care ..... | 27            |



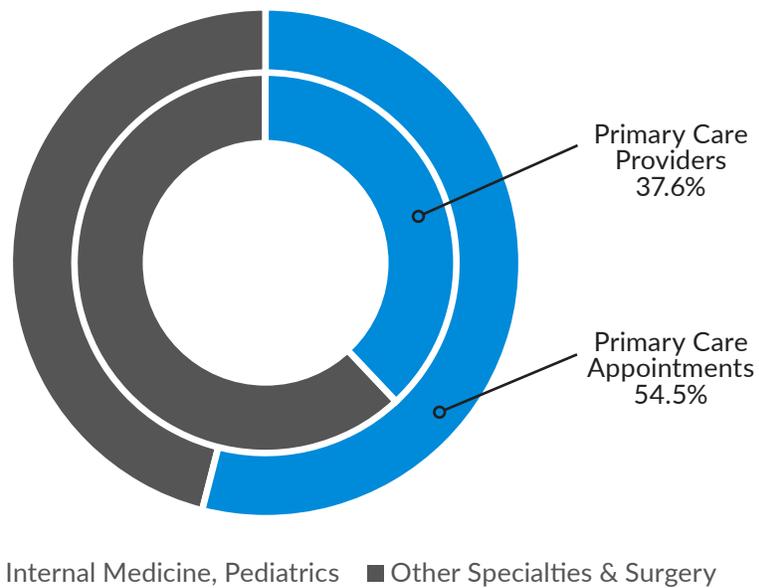


# Executive Summary

Primary care is the most common touchpoint in medicine, accounting for 54.5 percent of all U.S. healthcare appointments in 2016, in which a provider plays a central role in the definition and distribution of a patient’s care. Historically, the primary care provider (PCP) acts as a central organizer, “helping the patient define the conditions under which entry to professional services and continuation in care are appropriate.”<sup>1</sup> While other specialists see the patient when need arises, the PCP maintains an ongoing, longitudinal relationship. As patient demand has grown and provider supply has shrunk, this essential element of healthcare is facing a complete collapse, but with new technologies, providers and patients can begin to reinvent primary care practice for the 21st century. This report explores three evolving technology-enabled solutions that offer ways to make primary care more accessible and convenient for patients, and less burdensome for providers.

Research for the report is based on interviews with Primary Care Providers (PCP), advanced practitioners (AP), and executive leadership teams at regional health systems, independent practices, and academic medical centers. These individuals helped identify and clarify the benefits and challenges of technology implementation, along with their views of what elements of a product offered the most value to them or their patients. Twenty-one vendors in the identified spaces were interviewed and provided product demonstrations.

**System Burden of Primary Care in 2016**



Association of American Medical Colleges Active Physician List, 2016  
 CDC National Ambulatory Medical Care Survey, 2016

Figure 1: Healthcare Burden Largely Falls to Primary Care Setting

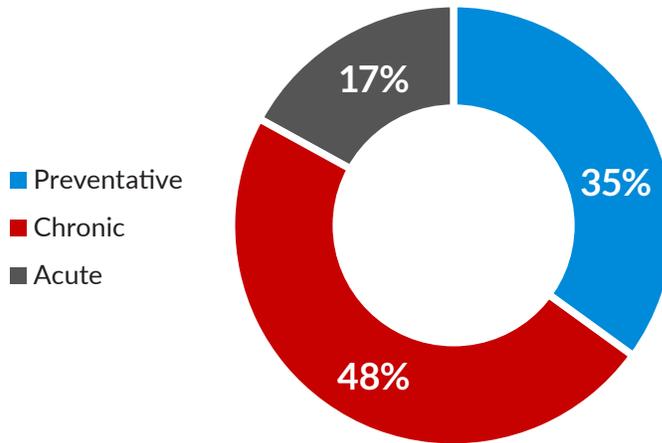
<sup>1</sup> Alpert, J. J., & Charney, E. (1974). The education of physicians for primary care. Washington: Health Resources Administration.

## KEY TAKEAWAYS

- > The U.S. primary care system no longer meets the needs of its patients or providers. New technological approaches combined with the drive to move care to lower cost settings are creating care models that better meet patient needs and are accessible on demand.
- > The Primary Care First (PCF) payment models from CMS will become the new normal for primary care reimbursement. In PCF, payments will be the same for services in or out of the office, with both upside and downside risk tied to quality and cost performance. These changes mean that providers and practices will need to do more to engage patients, maintain and improve patient health status, and improve the patient experience.
- > We describe three types of solutions that can contribute to or complement the modern technology-enabled primary care practice, promising to meet the challenges of increased demand, changing needs, and evolving payments. Each has different access, burden, and cost implications for providers and patients. We explore:
  - Telemedicine
  - Virtual and Remote Care Platforms
  - AI-Enabled Assistants, Symptom Checkers, and Chatbots

# The Primary Care System in Freefall

Primary care has evolved beyond coordination. Today, physicians and their staffs act increasingly as broad service providers. As systems concentrate professional services and specialties, or restrict access to them, PCPs find themselves forced to take on unfamiliar and clinically difficult roles. Chronic care management and preventative care account for more than 80 percent of PCP clinical hours. Many PCPs claim to have insufficient time to deliver what they consider adequate care for their patients. Minimum adequate patient care in three major categories—preventative care, chronic care management, and acute care—is estimated to require just over two hours per patient per year.<sup>2</sup> By that standard, a panel of 2000 patients would require almost 80 hours of active clinical time every week.



Source: Altschuler, Margolius, Bodenheimer, & Grumbach, 2012

Figure 2: Use of Provider Time in Primary Care (U.S.)

| Metrics of Primary Care Access in the United States                                       |           |
|---|-----------|
| <u>Adults with no reliable access to care</u> (not including ED)                          | 17.3%     |
| <u>Adults with no contact with medical professionals in the prior year</u>                | 34%       |
| <u>Average wait time</u> for primary care appointment (major metropolitan areas only)     | 29.3 days |
| <u>Average wait time</u> for primary care appointment (major and mid-size municipalities) | 54.3 days |
| <u>States with &lt; 50% of primary care needs met</u> (2018)                              | 31        |
| <u>Largest % of primary care need met</u> in a single U.S. state                          | 77%       |

Table 1: Primary Care Access in the United States

Patients also struggle with the primary care experience. In many U.S. states, simple access to a PCP, or any care outside of an emergency department (ED), is hard to obtain. Lack of access has resulted in increased wait times for appointments and care delays that have only grown over time. Wait times in large cities have increased 50.3% since 2014. In smaller cities, wait times have gone up 178.8% in the same time period.

<sup>2</sup> Altschuler, J., Margolius, D., Bodenheimer, T., & Grumbach, K. (2012). Estimating a Reasonable Patient Panel Size for Primary Care Physicians With Team-Based Task Delegation. *The Annals of Family Medicine*, 10(5), 396-400. doi:10.1370/afm.1400



## Looking to the Future

The technology-enabled primary care office is still mainly concerned with the long-term well-being of its patients. What these new technologies offer are ways to engage with patients in novel ways, expanding the relationship and ability to deliver care in the home and throughout the patient's life. More patient-physician touchpoints will deliver better visibility into the reality of the patient's experience. With AI tools, patients can receive care when and where they need it, at a lower cost, and without obstacles that now result in no care at all. For providers, more time- and attention-consuming tasks can be automated or redirected, freeing time for real clinical work.

Public and private payers increasingly see the vital role of primary care in improving the health of their covered populations and controlling costs. With AI tools, health systems will be able to see more patients and more accurately monitor their conditions and healthcare status. More efficient use of provider time allows for more PCP appointments and less burnout, without reducing patient panels or reimbursable activity.

### KEY CONCLUSIONS

- > The technology-enabled primary care office isn't a new vision or a revolution in care. It's an evolution of primary care, recognizing that new tools and technologies offer new ways to provide this essential service.
- > New methods of delivering technology-enabled primary care offers new ways for patients to access care directly, for providers to gain visibility into the patient's life and experience, and for both sides of the care loop to communicate.
- > Primary care is too important for patients and too vital to quality of care for systems to allow it to break down or devolve into a variety of distinct, siloed products.
- > If primary care access, burden, and cost aren't addressed, patients will continue to move towards solutions that offer convenience but don't help with long-term care and needs.
- > These solutions offer ways to not just improve care, but to support value-based healthcare that will soon be the new normal.

## About the Author



Alex Lennox-Miller joined the Chilmark Research team in 2018, as a research analyst specializing in provider-payer convergence. His work focuses on value propositions for HCOs and payers, particularly in the implementation and potential use cases of analytic and workflow packages for clinical, administrative, and financial areas. From value-based payments and population health quality to revenue cycles and staff appointments, Alex believes that improved understanding and use of HIT is essential in providing the best possible care for patients, as well as improving the lives of clinical providers.

Before joining Chilmark, Alex was the senior business analyst for Process Improvement Operations in Lahey Health System, where he learned first-hand the challenges and value in implementing analytic programs and an analytic mindset in the healthcare setting. Prior to that, he was the founder of KSVL Consulting and specialized in providing accounting, finance, and business model consulting to start-ups and new businesses in Greater Boston. His background in process engineering and financial analysis comes from Northeastern University, where he earned his MBA in 2016.



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