Telehealth—A Technology-Based Weapon in the War Against the Coronavirus, 2020
Social Distancing Needs will Present Both Growth Opportunities and Challenges

Global Transformational Health Research Team at Frost & Sullivan
Benefits of Telehealth

- Telehealth eliminates the need for physical contact between patient and provider.
- Virtual visits can be scheduled quickly, and many more patients can be seen in a day.
- Some patients may be virtually treated and tracked with RPM.
  - Highly contagious patients can be triaged and handed off to a specialized first responder team.
  - Medicine, if available, can be e-prescribed and adherence tracked.
  - Tools that help a patient self-examine during or before a virtual visit are becoming available.
  - Important patient-generated health data can be gathered and analyzed. These data may be uploaded to an electronic health/medical record (EHR/EMR), sent to a specialist for further review, anonymized and utilized by clinical decision support systems, or sent to population health management (PHM) systems or fed to predictive analytics systems.
- Telehealth can be used to provide essential services to patients who reside in areas that do not have enough primary care physicians or specialists.
- Telehealth technology can be used in a clinical trial or post-market (Phase 4) trial.
- Primary care physicians and specialists can consult with each other regardless of their location.

Source: Frost & Sullivan
Market Definitions

Virtual Visits: Remote medical exams that can assess, treat, or triage certain conditions. Providers can offer services similar to those of a primary care physician, or specializations such as tele-dermatology or telemental health.

RPM: Remote, medical-grade monitoring of certain biometric indicators. RPM systems may be supplied by medical device makers or include patient-owned devices.

mHealth: Mobile technologies that use wireless networks, apps, devices, and wearables to deliver telehealth services to patients.

PERS: Consumer-focused technologies that allow users to initiate an emergency response when they have fallen or suffered a medical emergency. Some require a user to press a button; advanced systems do not require the user to engage it.

Source: Frost & Sullivan
Indicators from Recent Company Statements

Virtual visit provider X reported March 13:

“Patient visit volume spiked X% over the prior week and continues to rise ... to as much as X visits requested per day. Teladoc Health has provided approximately X virtual medical visits to patients in the United States in the past week, helping to alleviate pressure on the broader health care system.”

Virtual visit provider X reported March 24:

“Last week, Amwell’s weekly activity was up about X% overall nationally compared to projected traffic volume. In Washington, where the COVID-19 outbreak originated in the U.S., usage is up X%.”

RPM services provider X stated March 27:

“Using technology for self-reported symptom monitoring may play an important role in slowing the spread of the disease and helping escalate patient needs to their provider when appropriate.”

Source: Frost & Sullivan
Telehealth Virtual Visit Technology View

Key Takeaway

Network of Doctors

Cloud-based Network Platform

EHR/EMR

Service Provider

Communications Link

Tools:

Patient at Home

Systems:

Source: Frost & Sullivan
Description of an RPM Solution

1. A mix of clinical medical device, consumer wearable, connected home, and car-based sensors enabled by wireless communications to measure physiological and some behavioral parameters; and an integrated platform leveraging a smartphone that acts as a gateway and securely transfers data to a centralized repository.

2. A cloud-based command center where patient data from gateways and diagnostic applications are stored and analyzed.

3. Direct transfer/access to patient data, analytics-based optimization parameters, and provider alerts to an enterprise healthcare IT system.

4. Visualization and display software at the healthcare provider site or monitoring center that can generate treatment recommendations and intervention alerts based on analyzed data.

5. Simultaneous direct notification of “intervention needed” alerts to individual patient care team members, leveraging multiple types of mobile and smart devices depending on individual practitioner preference.

6. Selected patient data that is transferred to family/loved ones leveraging an mHealth application tied to the RPM platform.

Source: Frost & Sullivan
5-Step Process to Transformational Growth

Key Takeaway: The challenges presented by the COVID-19 pandemic has obliterated the normal growth sequence for telehealth.

Scope of This Study

- Deep analysis of the market
- Predicting the future of this market
- Determination of opportunity universe
- Strategic options framework

Customized Solutions for Your Company

- Prioritization of growth opportunities
- Translation into cogent strategies
- Planning and implementation
- Monitoring and optimization

Source: Frost & Sullivan
## Telehealth Market: Drivers and Restraints, US, 2020–2025

### Drivers and Restraints

<table>
<thead>
<tr>
<th>Market Drivers</th>
<th>1–2 Years</th>
<th>3–4 Years</th>
<th>5–6 Years</th>
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<tbody>
<tr>
<td>Need to divert a defined population away from provider offices and the ER</td>
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<td>Removal of regulatory constraints for COVID-19 patients</td>
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<td>Ability to perform accurate remote exams on highly contagious patient population</td>
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<td>Value-based reimbursements or direct-to-consumer offerings at out-of-pocket rates</td>
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<td>Employee telehealth offerings at per-member, per month rates, plus usage rates</td>
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<th>Market Restraints</th>
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<tr>
<td>Lack of standard reimbursement rates</td>
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<td>Scalability challenges magnified in a sudden ramp-up to combat COVID-19.</td>
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<td>Mix of medical- and consumer-grade solutions</td>
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<td>Concerns about security and privacy</td>
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<td>Interoperability and integration issues/concerns in multi-vendor environments</td>
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**Impact:**
- **H** High
- **M** Medium
- **L** Low

Source: Frost & Sullivan
Key Takeaway:

Telehealth Market: Revenue Forecast, US, 2019–2025

CAGR = %

Note: All figures are rounded. The base year is 2019. Source: Frost & Sullivan
Telehealth Market: Revenue Forecast by Segment, US, 2019–2025

Note: All figures are rounded. The base year is 2019. Source: Frost & Sullivan
Comparative Revenue Forecasts

Key Takeaway


Note: All figures are rounded. The base year is 2019. Source: Frost & Sullivan
Virtual Visit Revenue Forecast

Key Takeaway

Virtual Visit Segment: Revenue Forecast, US, 2019–2025

CAGR = %

Note: All figures are rounded. The base year is 2019. Source: Frost & Sullivan
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