



# *TELEHEALTH AND E-HEALTH AFTER COVID*

## *RECENT ADVANCES AND PERSISTENT BARRIERS*

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# TO DEFINE TELEHEALTH AND E-HEALTH

- What is eHealth?
  - Telemedicine: all methods providing healthcare at a distance
  - Telehealth: regardless of format, patient interacts with a therapist in real time
    - Live, contingent responding to patient's concerns
  - eHealth refers to digital health technologies that are distinct from, but can be integrated with telehealth
    - Provider/patient dashboards, EHR, informatics
    - Mobile and online apps, sensors, chat bots, integrated platforms
- Here, we will address Covid's impact on eHealth in two contexts:
  - Integrated with telehealth
  - Independent tools and interventions that influence how telehealth will be delivered

# IMPACT OF COVID-19 ON HOW E-HEALTH INTEGRATES WITH TELEHEALTH

- Independent and/or community-based providers moved to telehealth
  - Primarily entailed transition to (ultimately) secure platforms <sup>1</sup>
  - Wide-scale grappling with the digital divide <sup>32</sup>



# IMPACT OF COVID-19 ON HOW E-HEALTH INTEGRATES WITH TELEHEALTH

- Large telehealth companies and managed care organizations integrated more eHealth <sup>2-6</sup>
  - Integrated systems (i.e., collaborative care, SBIRT in primary care settings)
    - Enhanced functions in multi-system provider dashboards and patient portals
    - Third-party apps that manage and secure data and integrate into EHR
    - Patient data gathering, monitoring and management
    - Messaging
  - Increase in integrating treatment-oriented content and functions
    - CBT protocols, patient-facing tools
    - Focus on comprehensive protocols

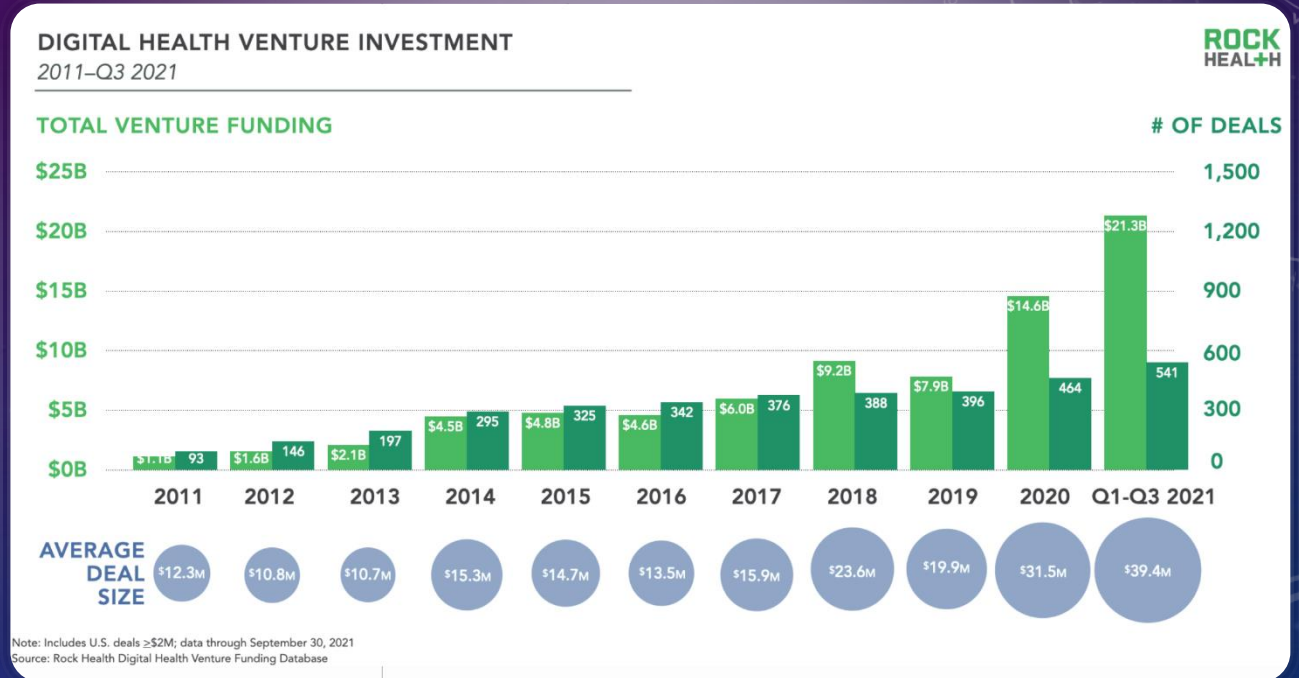


# IMPACT OF COVID-19 ON SELF-GUIDED E-HEALTH TOOLS AND INTERVENTIONS

- The rapid expansion of eHealth, particularly with regards to mental health
  - Catalyzed interest in the effectiveness of eHealth interventions and their adoption <sup>7-11</sup>
    - Increasing focus on evidence-based and user-centered design
  - eHealth tools for alcohol use <sup>12-17</sup>
    - Self-guided: ( $g = 0.20$ : 95% CI = 0.22, 0.38,  $k = 5$ )
    - Adjunct to treatment ( $g = 0.30$ : 95% CI = 0.10, 0.50,  $k = 7$ )
  - These interventions will appear in telehealth dashboards

# FACILITATORS TO WIDER DIGITAL HEALTH ADOPTION

- NIH SBIR/STTR and Private Investment<sup>18,19</sup>
- Digital Therapeutics with big market impacts
  - FDA Case Study: Pear Therapeutics, Dynamicare, and Contingency Management



# CURRENT BARRIERS TO WIDER E-HEALTH ADOPTION

- The current fragmented state of health technology <sup>21</sup>
  - The liminal state between translation of extant interventions and the creation of new ones
- Implementation challenges <sup>22,23</sup>
  - In MCOs: integration into existing environments of care
- Provider adoption <sup>24-27</sup>
  - Current generation not trained to use them
  - Unclear advantage with regards to outcomes
  - Bad design
  - Questions about privacy
  - Innovation fatigue

# FUTURE DIRECTIONS

- eHealth integrated with telehealth: are therapists ready for the tools technology will provide? <sup>28-31</sup>
  - Sensors, ecological assessment, cloud-computing, AI, automated interventions and 5G
    - Need for theory driven models
  - For alcohol: can we identify, track and effectively use key variables?
- Research and training needs
  - Focus on “digital divide” and related populations <sup>32-34</sup>
  - Moderators and mediators of uptake and engagement among patients and providers <sup>24,35-40</sup>
  - Program development for optimal integration of eHealth <sup>6,41,42</sup>
  - Train the next generation of providers to formulate their cases using available tech



THANK YOU!

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