



# The Role Of Digital Health In The Evolving Behavioral Health Market Landscape

Vinfen's Innovative Technology In Behavioral Health Conference

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May 20, 2022



**“Change is the only  
constant in life...”**

Heraclitus, Greek philosopher

Digital transformation –  
the integration of  
technology into all areas of  
a market –  
fundamentally changes  
how business is done  
and how value is delivered  
to customers....

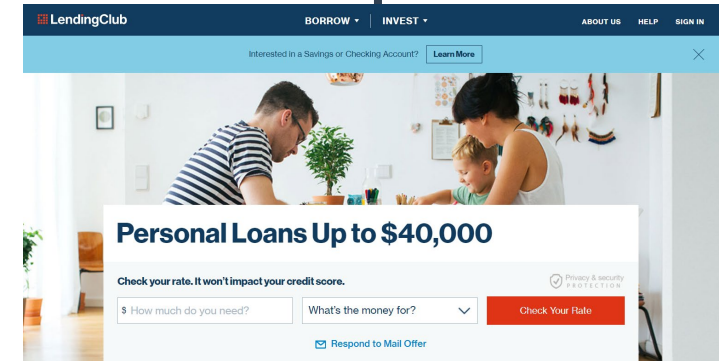




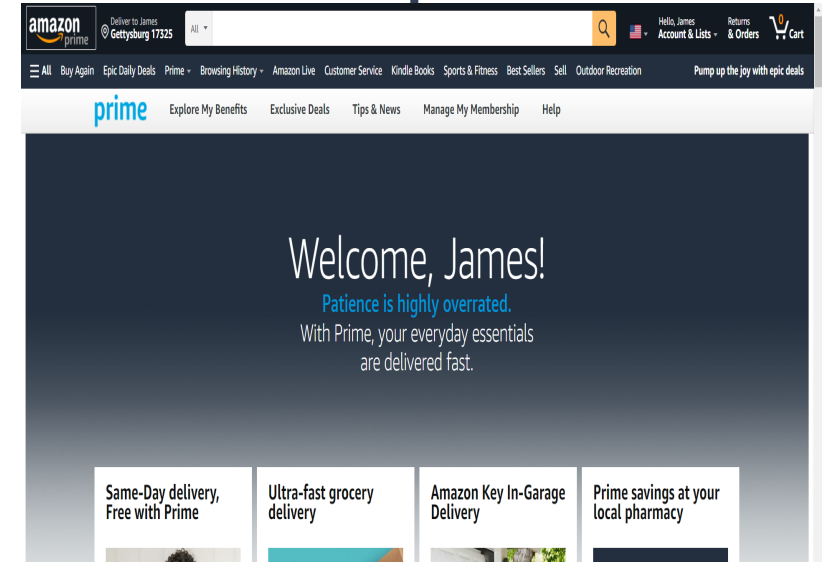
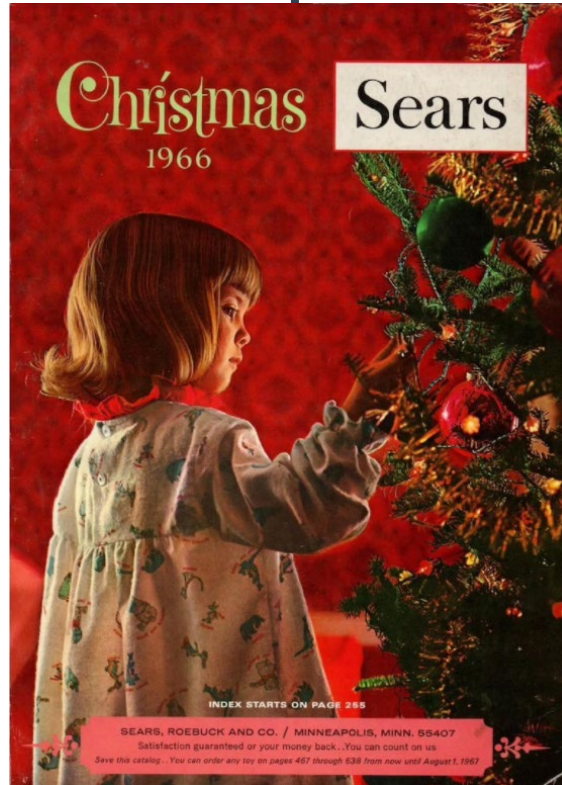
# The Digital Transformation Of Entertainment



# The Digital Transformation Of Banking



# The Digital Transformation Of Retail

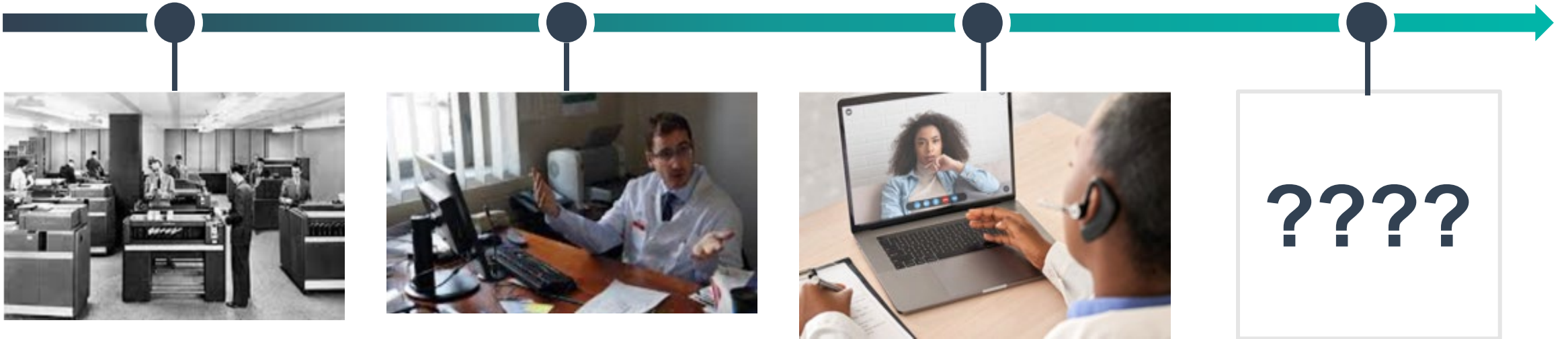




# The Digital Transformation Of News



# The Digital Transformation Of Health Care Hasn't Happened...





**Digital  
Transformation  
In Process  
Across Every  
Functional Area  
Of Health Care**

- Screening
- Diagnostics
- Referral
- Treatment via technology
- Remote monitoring
- In-home supports

# New Diagnostic Testing

- Galleri test demonstrated the ability to detect more than 50 types of cancer with a low false positive rate
- Pending pilot with Point32Health, the combined organization of Harvard Pilgrim Health Care and Tufts Health Plan
- \$1,250 per test



- Bile Ducts, Distal
- Bile Ducts, Perihilar
- Bladder, Urinary
- Bone
- Breast
- Cervix
- Colon and Rectum
- Esophagus
- Gallbladder
- Kidney
- Leukemia
- Liver
- Lung
- Lymphoma (Hodgkin and Non-Hodgkin)
- Melanoma of the Skin
- Merkel Cell Carcinoma
- Mesothelioma, Malignant Pleural
- Nasopharynx
- Oral Cavity
- Oropharynx (HPV-Mediated, p16+)
- Oropharynx (p16-) and Hypopharynx
- Ovary, Fallopian Tube and Primary Peritoneum
- Pancreas, exocrine
- Penis
- Plasma Cell Myeloma and Plasma Cell Disorders
- Prostate
- Small Intestine
- Sarcoma Unusual Histologies and Sites
- Stomach
- Testis
- Ureter, Renal Pelvis
- Uterus
- Vagina
- Vulva

# New Diagnostic Testing

- Blood test for Alzheimers
- The C<sub>2</sub>N test, called PrecivityAD, uses an analytic technique known as mass spectrometry to detect specific types of beta-amyloid.
- \$400

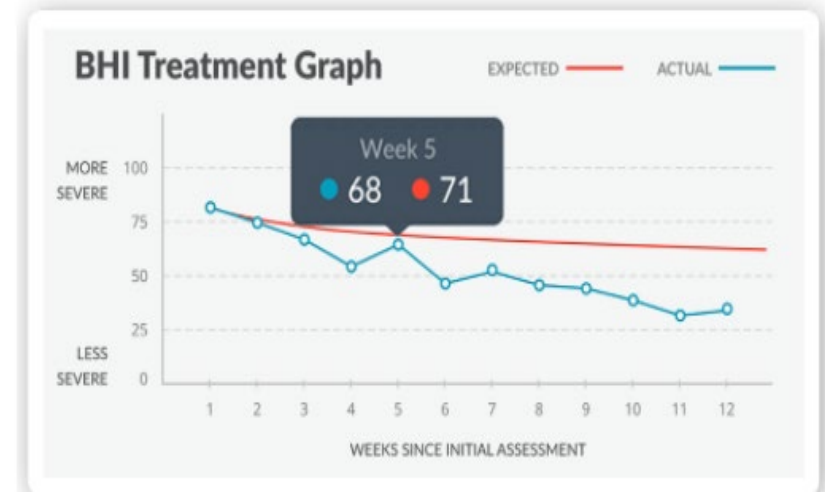
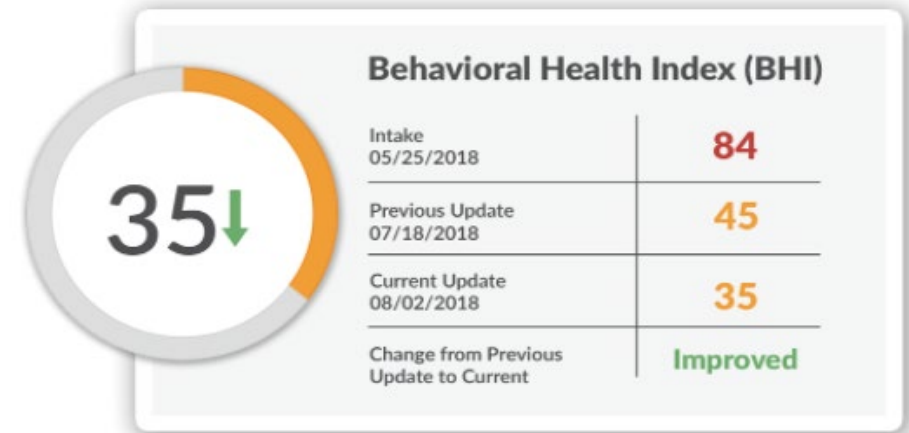


## **New blood test predicts autism with 92 percent accuracy**

Researchers led by those from Warwick University in the United Kingdom have developed a diagnosis test for autism that may predict it with an unprecedented level of accuracy.

# AI-Driven Referrals To Treatment

- Using consumer assessments to match consumers with treatment – whether self-directed, peer-enabled, or with clinical professionals
- “Typically 60% of professionals are a ‘best match’ for somebody—when that match occurs, they have 40% better outcomes.”
- When coupled with tech-connected scheduling, also reduced time to appointment to under 5 days – from 14 days – in recent launch





# Technology As Treatment

1. “New MIT Study Finds Headspace Has Comparable Impact As In-Person Therapy”
2. Study finding - giving access to the app without incentives saw meaningful improvements to depression, anxiety, and stress levels after two weeks.
3. App usage fell off after the two-week mark.
  - At two weeks, half used the app at least once every three days.
  - At four to eight weeks, to 9.5% using the app once every three days
4. “Even though the app we evaluate is vastly less expensive than in-person psychotherapy, it leads to comparable short-run improvements in mental health.”



# Technology As Treatment

- EndeavorRX, an FDA-authorized game for ADHD
- 73% children said they could more easily pay attention after one month of treatment.
- Caregivers can follow in-game progress using the EndeavorRx Insight<sup>®</sup> app

 EndeavorRx<sup>®</sup>



# On Demand Virtual Care Continues To Evolve

- Teladoc to partner with Amazon on Alexa-enabled virtual visits
- Users can connect with a Teladoc Health provider via audio by saying "Alexa, I want to talk to a doctor."
- Alexa will initially launch via audio, video visits will be coming soon
- The service is available direct to consumer for \$75

**Teladoc**<sup>™</sup>  
HEALTH



# Wearables For Remote Monitoring & Care Management

- Wearable to measure agitation in consumers with cognitive disabilities
- Uses a clinically validated algorithm that captures a personalized baseline measurement and reports real-time changes in stress and strong emotions
- Real time notifications to caregivers





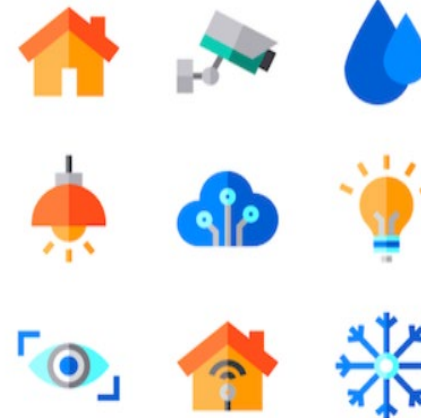
# “Smart Home” Technologies

- “Forever, Home” model – consumers live in housing equipped with 180+ different technologies to support their independence in living
- Creation of a “community cluster,” a group of four-bedroom, four-bath houses that are close together
- No more block staffing – move to staffing by intervention (only assist when a specific support activity required)
- Staffing required for three homes dropped from 18 FTEs to 5 FTEs
  - 56% reduction in the time staff spent in delivering services in a single home

## Home Automation Summary



### Handling 21 total requirements



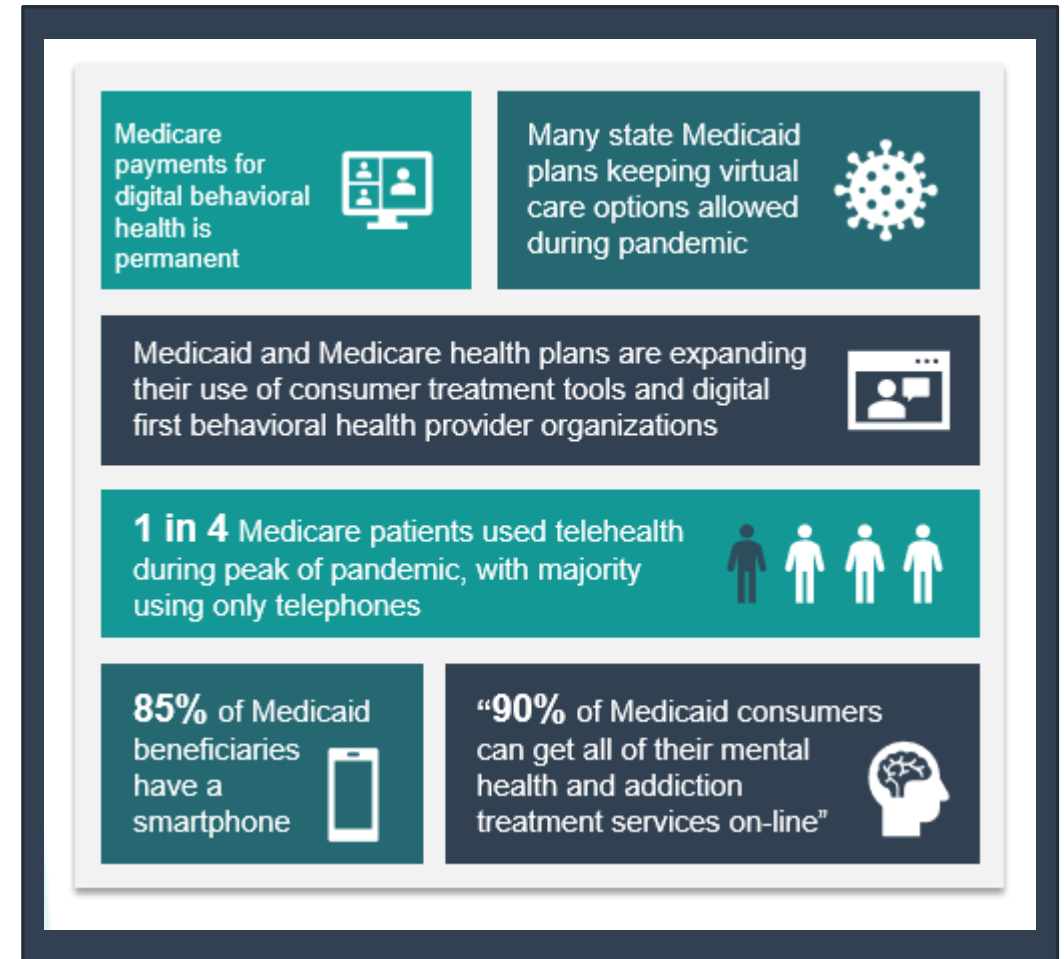
- Security system: includes door, motion & glass break sensors
- Smart door bell: video & communication to RSC
- Smart home entry: key pad, fingerprint & facial recognition
- Auto lock doors: lock from outside automatically
- Video monitoring & recording: Internal & external
- Smart thermostat
- Smart light switches
- Automated room and safety lighting: motion, time or event-based lighting for rooms and hallways
- Automated blinds: voice, mobile app, service center, scheduled
- Temperature/humidity sensors
- Water leak detectors
- Smart garage door: remote, time-based, alerts
- Smart home hub: Integrated to Alexa voice control
- Remote service center controls: Service center can remotely control and monitor all the above items
- Smart appliances, including refrigerator, oven, dishwasher, and laundry

# Strategic Issues For Provider Organization Planning In The Midst Of Digital Transformation

1. Many traditional services have declining demand - and price points
2. Margin opportunities lie largely outside of fee-for-service reimbursement
3. “Customer” relationships are shifting from government agencies to health plans
4. “Value proposition” definition has changed
5. Loss of market share for consumers with mild and moderate behavioral health conditions
6. Most specialty provider organizations are not able to deliver sustainable “hybrid” services
7. New technology investments may be required to remain competitive

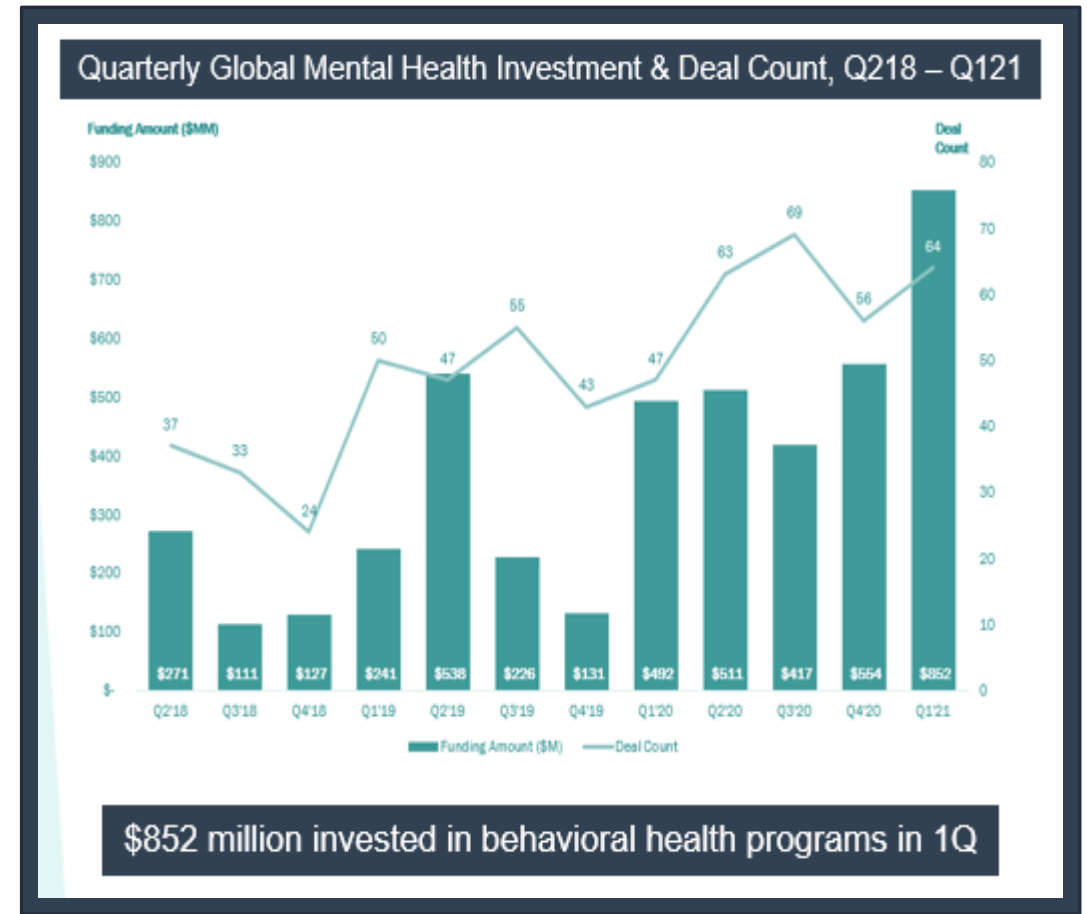
# More Competition... From Telehealth Adoption

- Telehealth has made every health care organization “statewide” (or national or international)



# More Competition... From Expanding Investment

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- **Record private equity investments in the health care space (particularly behavioral health and I/DD) continues**





# More Competition...From Digital-Primary Startup Provider Organizations

- Telehealth has made every health care organization “statewide” (or national or international)
- Record private equity investments in the health care space (particularly behavioral health and I/DD) continues
- Digital treatment technologies and remote monitoring technologies will cause some displacement of traditional services
- **New private equity-funded digital primary provider organizations are making major investments ‘large’ in direct-to-consumer web-based advertising - and easy consumer experience**



# More Competition... From Digital Therapeutics

- Telehealth has made every health care organization “statewide” (or national or international)
- Record private equity investments in the health care space (particularly behavioral health and I/DD) continues
- **Digital treatment technologies and remote monitoring technologies will cause displacement of some traditional services**




# More Competition...From Retail Health Players With Digital Health Investments

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- Digital treatment technologies and remote monitoring technologies will cause some displacement of traditional services
- New private equity-funded digital primary provider organizations are making major investments ‘large’ in direct-to-consumer web-based advertising - and easy consumer experience
- **Retail organizations are entering the market – Walmart, Amazon, CVS, Walgreens, Dollar General, Krogers, and more – with 40,000+ potential new health care service locations- with heavy emphasis on technology**



# More Competition...For Workforce

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- Retail organizations are entering the market – Walmart, Amazon, CVS, Walgreens, Dollar General, Krogers, and more – with 40,000+ potential new health care service locations
- **These organizations are employing thousands of licensed professionals**



Join 20,000+ therapists who are earning more with BetterHelp!

Select your license type to get started

Clinical Social Worker

(LCSW, LICSW, LISW, LICSW, etc.)

Marriage & Family Therapist

(LMFT, LCMFT, LIMFT, etc.)

Mental Health Counselor

(LMHC, LCMHC, LMHP, LPMHC, etc.)

Professional Counselor

(LPC, LPCC, LCPC, etc.)

Psychologist



# What We Know About The Post- Pandemic Health & Human Service Market Landscape

1. **“Whole person” care coordination models preferred**
2. **“Hybrid’ models becoming dominant in ambulatory therapy – in clinic, in home, virtual**
  - What can be done by telehealth or by new technologies? What needs to be done “face to face”? In clinic? In home?
  - The rise of hybrid service bundles
  - Home-based/virtual primary care model
3. **Facility-based services transitioning to ‘hybrid’ and bundled**
  - Home-based/virtual addiction treatment
  - Home-based/virtual long-term care
  - SNF at home
  - Hospital at home
4. **Price sensitivity + risk-based reimbursement**



**For Specialty  
Provider  
Organizations,  
The Opportunities  
Are Many...  
But Require New  
Business Models  
& New  
Technology**

1. Programs to manage the care of consumers with complex needs – integrated “whole person” care coordination (medical, behavioral, social), risk-based, leverage new technologies
2. Primary care services for consumers with complex needs
3. Home-based services
4. Targeted social supports programs
5. “In lieu of” services offering alternatives to traditional residential and inpatient care

Advantage goes to any organization with “better” performance and cost data....

# The Digital Side Of Whole Person Care

- Platform allowing access (and functionality) to a broad range of clinical professionals
- Interoperability across medical/behavioral/social data sets
- Integrated care coordination platform
- Consumer engagement tools



# The Digital Side Of Hybrid Service Delivery

- Consumer interface allowing scheduling across digital, in-clinic, and in-home options
- Support of electronic visit verification
- Robust consumer portals
- Smart home technology
- Mobile functionality for team members and consumers



# The Digital Side Of Downward Price Pressure & The Move To Value

- Digital substitution for synchronous therapy and service delivery
- Population health management functionality
- Financial systems billing and accepting range of reimbursement models
- Systemwide and consumer-specific performance metrics relative to reimbursement
- Interoperability with payer data sets



# Every Strategy Needs To Address Technology – The *OPEN MINDS* Tech Platform Framework For Community-Based Specialty Provider Organizations

Integrated Data & Analytics For Decision Making

Service Performance Optimization

Competitive Advantage

## Electronic Health Recordkeeping System

- ❑ Mobile
- ❑ User optimized
- ❑ Interoperable – integration of data – medical, specialty, social support
- ❑ Consumer assessment data, measurement-based care, decision support

## Hybrid Service Delivery Platform

- ❑ Virtual – telehealth, secure text, self-directed
- ❑ Home-based – electronic visit verification, route optimization, remote monitoring, smart home
- ❑ Integrated – centralized online scheduling for consumers, online scheduling of team

## Consumer Experience & Engagement Platform

- ❑ Optimized end-to-end virtual consumer experience – website, social media, information, data portal, scheduling, fee schedules, billing, communication
- ❑ App/smartphone connectivity
- ❑ Consumer decision making support and treatment tools
- ❑ Health and wellbeing management tools

## Value-Based/Risk-Based Reimbursement Platform

- ❑ Platform for tracking payer contract requirements and reimbursement
- ❑ Value measurement and financial risk management functionality
- ❑ Population health management tools and predictive analytics

## Integrated Human Resources Information System & Financial/General Ledger System

- ❑ Financial/General Ledger System
- ❑ Automated end-to-end revenue cycle management
- ❑ Automated recruiting/talent credentialing and talent management
- ❑ Schedule management/shift bidding



# Need To Build A Tech-Enabled System & Leverage Technology Requires New Model For Tech Selection

## Strategic Review

- Reduce cost of service per unit
- Reduce cost of service per case
- Improve payer preference
- Improve consumer preference
- Improve operating performance
- Improve consumer outcome or functioning
- Facilitate new consumer service
- Facilitate new payer relationship

## Clinical Service Delivery Review

- Clinical methodology and operational use of technology
- Scientific development and research data
- Outcomes and performance data
- Customer/consumer acceptance

## Business Model Review

- Enhanced/new service line business model and process mapping with embedded technology
- Financing model and reimbursement for enhanced/new service
- Integration into data platform
- Financial sustainability plan for the enhanced new business model – breakeven and P/L
- Determine key performance metrics for tracking performance and ROI

# Future Issues Shaping The Digital Health Landscape

1. Interstate licensure laws
2. Looming economic recession and stock market woes
3. Changing health care and tech investor profile
4. The organic sales (revenue) challenges of digital health tech start ups
  - Integration into the service delivery process
  - User interfaces across stakeholders
  - Data integration
5. Likely mergers – too many digital solutions for the market space
6. FDA clearance of prescription digital therapeutics
7. Health plan clinical criteria and reimbursement of prescription digital therapeutics

**“Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road.”**

Stewart Brand

# Turning Market Intelligence Into Business Advantage

*OPEN MINDS* market intelligence and technical assistance helps over 550,000+ industry executives tackle business challenges, improve decision-making, and maximize organizational performance every day.

