

We are called to make a healthy difference in people's lives.

NAACOS: Spring 2022 Conference

The Future of Health is Digital Care and at the Heart of Patient Centeredness



Today's Agenda

- Welcome and Introduce the Panel
- Objectives
 - What impact has COVID had on accelerating digital care for your organization
 - Describe the Care Team of the Future
 - How have you cut through the noise and helped clinicians make care more meaningful
 - How are you keeping patients/providers connected with digital solutions
 - Engagement strategies for patients and clinicians
- Brief overview of Digital Care post pandemic
- Report from the panel
 - Debbie Welle-Powell, Chief Population Health Officer, Essentia Health Facilitator
 - Rob Fields, MD EVP and Chief Population Health Officer Mount Sinai
 - Doug Clarke, MD Clinical Director, Medically Home
 - Kapil Parakh , MD Google/Fitbit
- Questions/Answers

Speakers



Debbie Welle-Powell is the chief population health officer at Essentia Health. She leads Essentia's \$2.4B transition from a primarily fee-for-service model of care to focused on value and risk-based population health. Her team is responsible for aligning the Health System's clinical and economic transformations in support of Essentia's vision to be the leading health system in Minnesota, Wisconsin and North Dakota. This includes fostering care management and clinical redesign to ensure that high-value care is delivered across the Health system and working with payers and employers to establish new economic models that support value-based care such as telemedicine, chronic and complex care, remote patient monitoring and Hospital at Home programs. Prior to Essentia, Ms. Welle-Powell was the vice president of accountable care and payer strategy for SCL Health System. As a seasoned executive, she led the strategic and market activities for accountable health readiness while developing innovative products, services, and technologies.



Robert Fields, MD, is a family medicine physician and serves as the EVP/chief population health officer at Mount Sinai Hospital in New York City. In this role, Dr. Fields leads a network of hospitals and physicians managing \$3.5 billion dollars of medical spend for over 450,000 patients in the downstate region. He also leads system strategy for managed care and value-based contracting and revenues. Dr. Fields began his career as an independent primary care physician serving all ages with a particular concentration on underserved Latino patients in Western North Carolina. He held various leadership positions including serving as the CMO of the area's first ACO. Dr. Fields came to Mount Sinai in March of 2018 as the SVP and CMO for population health. Dr. Fields serves as the past board chair of the National Association of ACOs (NAACOS) and serves on the board of America's Physician Groups (APG). He is also a member and chair for various national committees on quality and measure development for the National Quality Foundation and CMS.

Speakers



Doug Clarke, MD, is a practicing internal medicine physician and medical officer in the Center for Medicare and Medicaid Innovation where he implemented and leads the acute hospital care at home waiver initiative at CMS. He received his undergraduate and medical degrees from the University of Virginia and completed his residency at George Washington University. He has practiced as a hospitalist at a small hospital in rural Virginia and on faculty at the Medical University of South Carolina. He earned his MBA from the Kellogg School of Management at Northwestern University where he triple-majored in economics, finance, and strategy.



Kapil Parakh, MD, is a practicing cardiologist who serves as a Medical Lead at Google where he has pioneered partnerships with a range of organizations including the World Health Organization and the American Heart Association. Kapil previously worked on Google search to launch products that disseminate high-quality health information to over a billion people. Before Google, Kapil served as a White House Fellow and was the principal health advisor to the Secretary of Veterans Affairs. He was also the co-founder of an award-winning non-profit on health innovation. He was previously Director of Heart Failure at Johns Hopkins Bayview where he developed novel care delivery models. As a clinician-scientist he has published a number of papers on psychosocial factors in heart disease. Kapil is board certified in Internal Medicine, Cardiology and Advanced Heart Failure and holds a MD, MPH and PhD. His book, [Searching for Health](#), was published by Johns Hopkins Press.



Telehealth: Healthcare Reimagined



- **Care Delivery**
 - Virtual visits, Evisits, RPM, Hospital at Home
- **Digital Patient Experience**
 - Direct to Consumer tools
- **Health and Wellbeing**
 - Preventive Care redesigned
- **Equity**
 - Harness technology to bridge disparity
- **Efficiency**
 - For patients and Providers – inpatient/ outpatient
 - TCON – between facilities, specialty consults
- **On Demand Services**
 - Synchronous and asynchronous virtual care



Telehealth trends from late-stage pandemic

- The number of virtual-first payers keeps growing, and physicians struggle to keep up
- Patient-physician relationships are shifting
- Patient Patients and Physicians see telehealth differently



Four critical actions for providers to consider

- Determine the most clinically appropriate setting
- Access patients wants and needs in relevant markets and segments
- Partner with physicians to define a new operating model
- Communicate clearly to patients

Virtual Care at Essentia Health

Telehealth Impact Volumes

Virtual Visits 489,738
Specialty Telehealth Consults 6,939
24/7 Virtual Visit On Demand 11,788
EVisits 103,179
Remote Patient Monitoring 529 patients
Hospital at Home 4 patients



Serving a population of
600,000 unique pts,
180,000 lives

Covering

Rural Minnesota,
North Dakota and
Wisconsin



Telehealth Services List

TeleHospitalist
TelePharmacy (MTM and Discharge Education)
TeleED
Elder Care
24/7 On Demand Care
Patient Digital Care
TeleNeonatology
TeleToxicology
Telestroke
Remote Patient Monitoring
Specialty Consult (43 specialties)
TeleBehavioral Health (including ED Consult & Triage)
Kiosk



Launched
Nov 2020

RPM Volume

- **527** COVID + patients on remote patient monitoring
 - More than **2,472** virtual visits
- Typical patient on RPM for **21** days with **4.69+** virtual visits

PREVENTED



145 Hospitalizations



215 ED Visits

Cost Savings: \$3.6M

Cost Savings: \$1.07k

OUTCOMES

Emergency dept. rate: 20%

Hospitalization: 14%

Readmission rate: 3%

\$4.67M
savings

Mount Sinai Health System:

Digital Strategies for Population Health

Rob Fields, MD MHA

EVP, Chief Population Health Officer



**Mount
Sinai**

Agenda

1

Digital For What?

2

Examples of Sinai's Digital Strategy in Action

Mount Sinai Health Partners: Clinically Integrated Network

~ 3,100 full-time faculty physicians

~ 1,300 committed voluntary physicians

8 hospitals spanning Manhattan, Brooklyn, Queens, and Long Island

55 urgent care sites covering Manhattan, Brooklyn, Queens, and Long Island

Geographic access and coverage across the 5 boroughs, Long Island, and beyond

Integration with ASCs & FQHCs across New York City



Over 400 community locations

45 skilled nursing facilities that collaborate with our network

Committed to a vision of transforming healthcare in New York towards value-based care and population health

Access

On demand televisits

Primary and specialty televisits

Online scheduling

Patient Engagement

Wayfinding

Inpatient nutrition ordering

Family conferences

Live chat

Condition Management

eConsults

RPM

B.Y.O.D.

Text based assessments

② Condition Management Program

Mission

The Condition Management program focuses on patient-centered clinical services using innovative technologies that improves access to care, positively impacts health determinants, and improves overall clinical outcomes.

Through services such as remote patient monitoring, therapeutic optimization and clinical coaching, we strive to help patients monitor, manage, and maintain their conditions.



Currently serving **700 patients** for hypertension, heart failure or COVID management. In 2022, will expand to diabetes, pulmonology and high-risk OB with Current Health.



Dedicated care team consisting of a clinical pharmacist, registered dietician and patient coordinator



Devices are **easy to use** – no additional Wifi or technology required from patients. Condition Management team manages the device set-up, operations and daily management of vitals.



Strong focus on health equity and **reducing health disparities**

Program Evaluation Findings

The background is a solid blue color with a white dot grid pattern. On the right side, there are several light blue geometric lines forming abstract shapes, including a large triangle and a smaller, more complex shape below it.

Program Metrics

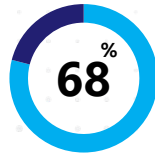
Health Equity, Clinical Outcomes, Utilization

Metrics

Reduce Health Disparities

- 52% of patients have a median household income of <50k
- 73% of participants are Black or Hispanic

Clinical Outcomes



Value Based Care patients had a blood pressure of <140/90 at three months



On average, 7 point reduction in SBP at three months

Utilization Outcomes



76.1 % reduction in the odds of an inpatient admission compared to usual care cohort matched on age, race, sex and prior utilization



RPM patients experienced fewer inpatient admissions over three months

- In a matched-control study, the number of RPM patients (12) with a 3-month IP admission was **three times less** than the usual care cohort (37)
- The cost of inpatient admissions at 3-months among RPM patients equates to approximately **\$625,000 in average cost savings**

② Bot-Enabled Outreach

Goal



More efficient virtual high-risk patient identification via the use of bot-enabled interactions. Turns and outbound care management workflow into an inbound process where patients self-identify and stratify based on current need. Used first during the peak of the pandemic spring 2020



Outreached over 10,000 patients at a time



"Hit rate" of about 10%

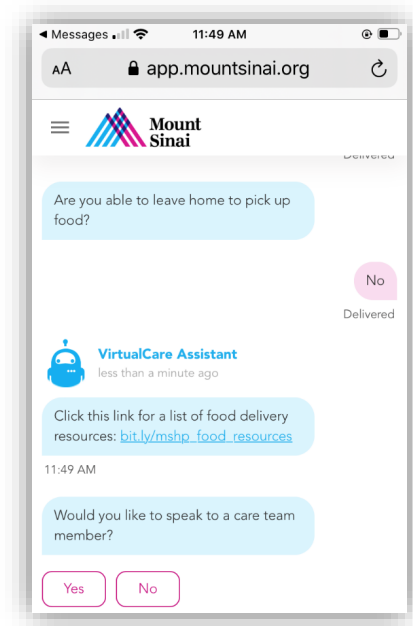
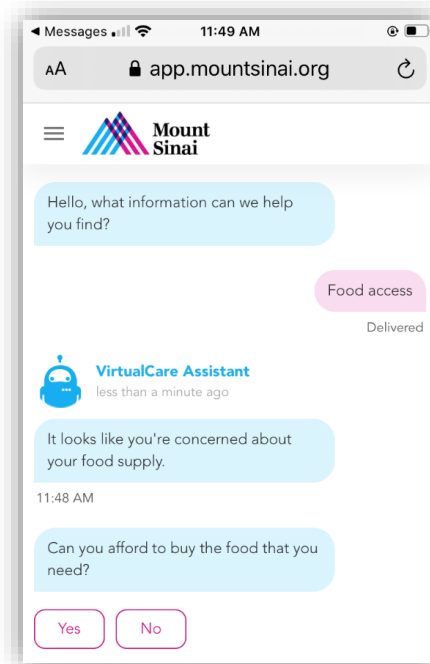
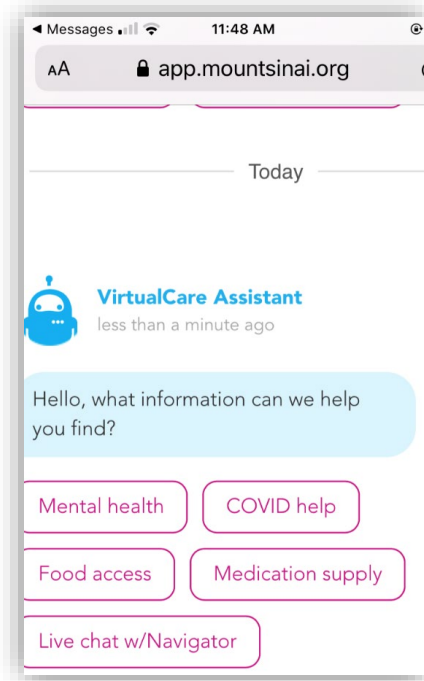
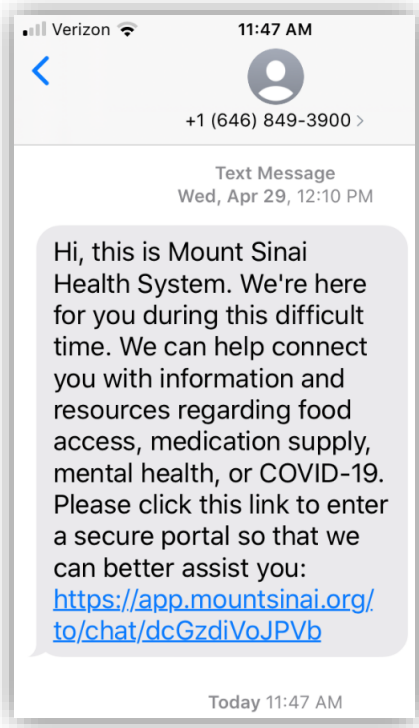


Focus on 5 areas: 1. Food access 2. Behavioral health 3. Medication access 4. Condition management 5. COVID care



Template for other forms of outreach post-COVID

Text-Based Outreach to Identify Needed Supports

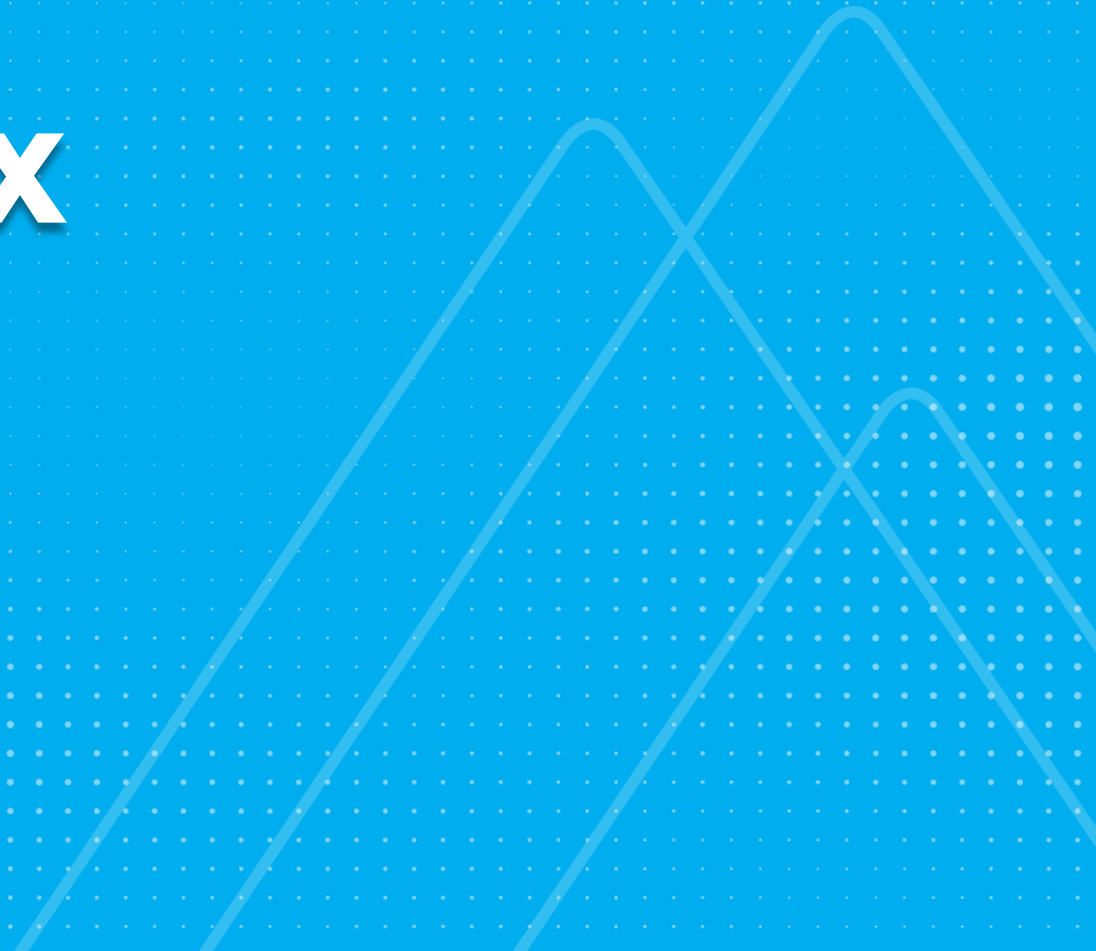




Thanks!

Robert.Fields@mountsinai.org

Appendix



Proactive care model allows for more than achievement of clinical outcomes of monitored conditions

Discovery and resolution of medication errors

- An out of range alert notification for BP <90/50 was received for a 69F patient followed by cardiology and primary care provider
- Pharmacist conducted a chart review - patient recently discharged from the hospital and was prescribed both valsartan 320mg and losartan 100mg every 12 hours. Patient reported taking both agents
- Through collaboration with PCP and cardiology, the patient was advised to discontinue losartan and continue valsartan
- She was scheduled for timely follow up to evaluate her BMP after duplicating ARB therapy

Discovery of an undiagnosed medical condition

- Team received an out of range notification for a hypotensive patient who is typically hypertensive
- Pharmacist informed the provider, who brought the patient in for work-up and labs sooner than next scheduled visit
- Work-up revealed that patient had anemia, provider referred patient to renal and hematology
- Provider states that without the Condition Management program, he would not have been able to identify as quickly



Provider Experience

✓ Provider

MD appreciates the frequent follow-up from the PharmD who leads the clinical decision making, comfort that their patients are being actively followed in between PCP visits, additional data that supports clinical decision making

✓ PCP- IMA

"The remote patient monitoring program is fantastic. It takes all of the guesswork out of hypertension management. And with the added support of a clinical pharmacist, **my patients get exactly the right care at the right time**".

✓ Cardiologist- Mount Sinai Heart

"You are providing such an invaluable resource to bridge the gap in non compliant and difficult to communicate with patients.

I am so glad you are expanding!"



Patient Experience



"Oh this actually works!" a patient responded after being outreached after an alert triggered by the pharmacist



"I like the use of the blood pressure machine as my own **self-management tool** , because of the machine I now check my blood pressure twice a day!" a patient reported during her visit



"I know that when my numbers are high, that I will be getting a call from you" a patient responded after being outreached by the pharmacist.

Remote Patient Monitoring — Hypertension and Heart Failure

The Condition Management Program provides pharmacy co-management services across the health system through a virtual department. A core component of the program is **remote patient monitoring**. Clinical pharmacists **enroll, monitor and manage patients** with their collaborating providers. The program, has over 650 patients enrolled across 17 practices.

BLOOD
PRESSURE MONITOR



BODY
WEIGHT SCALE



A DATA HUB
(with Charger)



- Bluetooth-enabled devices and cellular data hub
- How it works:
 - Patient plugs in the data hub, keeps the devices within 20 feet
 - Readings transferred from the device to the hub, analyzed in vendor's cloud, and uploaded to EPIC EMR
 - Notifications generated for out-of-range values based on pre-determined thresholds, which can be adjusted at any time by the referring provider

Condition Management Care Team



Clinical Pharmacist

- Medication optimization via standardized protocols
 - Medication reconciliation
 - Lab ordering and interpretation
 - Medication education
-



Dietician

- Nutrition and lifestyle clinical coaching
 - Develop personalized dietary and lifestyle care plans
-



Patient Coordinator

- Concierge level coordination services
 - Medication adherence management
 - Barrier identification and support
 - Device education and troubleshooting
-



Supervising Physician

- Clinical supervision
 - Monthly billing and attestation
-

Condition Management Team Members



Program Director

- Supervise clinical and program operations
- Oversee program budget, financial revenues, and billing targets
- Onboard new practices and providers



Program Manager

- Monitor program operations, enrollments, and KPIs
- Maintain vendor relations
- Assess staff and practice productivity
- Participate in program and IT workgroups



RPM Specialist

- Support clinical pharmacists for patient engagement
- Escalate device troubleshooting issues to vendor
- Execute patient enrollments
- Device education and RPM support



Director of IT - Digital Health

- Lead contract execution of new vendors
- Oversee integrations of new devices and digital health platforms
- Provide technical expertise to troubleshoot IT issues

Patient Journey

Patient Referral



Physician places a 'Referral to Condition Management' in Epic

After physician referral, the patient is aligned with a **patient coordinator, dietician** and **clinical pharmacist** who completes enrollment and consent

01

Program Enrollment Phase



Within 2 weeks, patients receive and are setup with their devices, their care team, receive training and scheduled for their first clinical visit with the clinical pharmacist

02

Clinical Management Phase



The Condition Management team facilitates care path changes with patients through collaboration with **referring physicians**.

Care team will also be notified on out-of-range notifications

03

Clinical Maintenance Phase



Once patients have reached individual clinical goals, patients **remains enrolled** with communication conducted by the care team on a **monthly basis**

04

Enhance Digital Experience

In partnership with IT, build assets in Compass Rose, Care Companion and other tools to optimize patient and provider RPM experience. This is critical in improving efficiencies and increasing patient, provider satisfaction.

- Digital front door experience
- Patient facing care plans
- Clinical rules based surveys, To Do's
- Video visit enhancements on tablet
- Optimized dashboards

Enrollment Criteria and Cost

HTN Enrollment Criteria



Patients with chronically uncontrolled hypertension
(last 3 office visits > 140/90)

Cost Sharing for Services






Traditional Medicare: 80/20 coinsurance split

Medicare + Secondary: 20% coinsurance is typically
offset by secondary

Healthfirst Medicaid, UMR service is also covered

Looking Ahead...

In 2022, we will focus heavily on our high-risk maternity population to continue to drive clinical outcomes and reduce health disparities.

-  In NYC, Black women are **8-12x** more likely than white women to die complications during pregnancy and childbirth, including preeclampsia
-  Nationally, it has been shown that 60% of maternal deaths can be avoided. **Continuous pregnancy support, symptom education and screening, and timely interventions** for high risk conditions have been shown to prevent complications and reduce maternal deaths
-  **Condition Management** team has been awarded an FCC Telehealth grant to build a high-risk maternity program in 2022 and will start enrolling January '22

In-Home Advanced Primary Care

April 2022

Douglas V. Clarke, Jr., MD, MBA, FACP



**Medically
Home®**

Agenda

1. Tailwinds from COVID-19 driving care home
2. Expanding high-quality care in the home
3. TetherMed Services - Tech Enabled Effector Arm

Explosive growth of telehealth during COVID-19 Public Health Emergency

- Center for Medicare and Medicaid Services (CMS) waivers
 - Telehealth coverage of many CPT codes
 - Hospital Without Walls
 - Acute Hospital Care at Home
- Necessity accelerated adoption
 - Initial surge to >30% of office visits via telehealth; stabilized ~13%¹
 - >50% of physicians utilized telehealth for the first time in the first few months of the pandemic²
 - Contrasted prior assumptions that Medicare patients would not be willing/able to participate in virtual care
 - Improved patient and provider attitudes toward telehealth

1. <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality>

2. <https://www.ama-assn.org/practice-management/digital/2022-moving-beyond-telehealth-digitally-enabled-care>

The Medically Home Operating Model

Designed for High Acuity Care at Home



Purpose-Built for High Acuity

The Medically Home chassis – the platform, supply chain, clinical operations model, and payer systems – were purpose-built to enable high acuity care (SOI 2 & 3 patients) across a range of DRGs (e.g., COPD, CHF, Cellulitis, Pneumonia, Sepsis) covering up to 30% of admissions



Chassis Enables Scale and Broad Use Cases

High-acuity focus enables a program to achieve scale by serving a wide array of inpatient needs. The Medically Home chassis can extend to other use cases along the continuum such as ED substitution, episode prevention, and supportive oncology



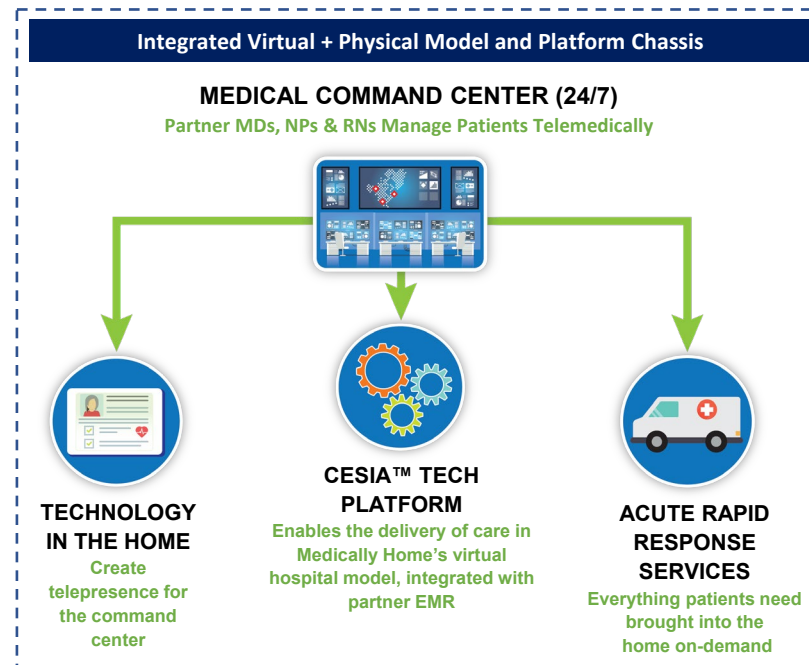
Partner with Health Systems

Focus on enabling physicians and nurses to care for patients with the tools, technology, and complementary in-home services to replicate the care the patient would have received in the brick-and-mortar hospital



Proven Results

Very clear evidence from decades of clinical trials and experience across partnerships with leading health systems confirms the model quality, safety and savings, including reducing cost by 20-30%, improving outcomes, and improving patient experience



More Care Over a Longer Period of Time

Arbitraging out the fixed cost burden of hospitals enables a much longer care period that seamlessly integrates acute care with post-acute (restorative) care

Pushing Decentralization Beyond Acute Hospitalization

- Recognition of role of upskilled paramedics and nurses to unlock true decentralized care delivery system
- Large gap created by home nursing filled by a new clinician type - the Mobile Integrated Health provider
- Health systems, ACOs, SNFs and Insurance Companies looking for next-gen care-in-home models
- EMS agencies want/need to transform from traditional low margin transport to high value-added provider

Swiss army knife solution for Advanced Primary Care

- **Enable EMS and nursing providers to practice standardized, high-quality care-in-place clinical services**
- **Ability for ACOs to leverage large strategic partnerships to create sustainable healthcare provider opportunities within communities**
 - Don't replace great PCPs who know their patients – simply allow them a window into their patients' homes with the ability to create an actionable plan that starts immediately
- **Advanced Point of Care testing**
 - I-stat for hemoglobin, basic metabolic panel
 - Portable Ultrasound for IV access
- **Formulary includes >70 medications with diuretics, common oral/IV antibiotics**

Existing Acute Substitution Staffing Creates Solution for ACOs

Ability to serve the following market segments and will leverage Medically Home's high acuity positioning, while serving lower acuity applications.

At-risk provider technical arm in home

Hospital @ Home Market

Description

- Medically Home's existing customer footprint
- Covers +70% of in-home services required

ED/Urgent Care in Home Market

- Aligned with shift in EMS industry towards treat-in-place and alternative destination
- Tethered nursing and paramedic visits to substitute for emergency department and urgent care visits

PCP Extension and "Pop Health" Market

- Non-urgent care increasingly a consumer good shopped for convenience
- Eliminates startup barrier for physician groups and health systems looking to engage patients in their homes
- 24/7/365 access for subacute post-discharge visits, patients with difficulty traveling

Sample Customers

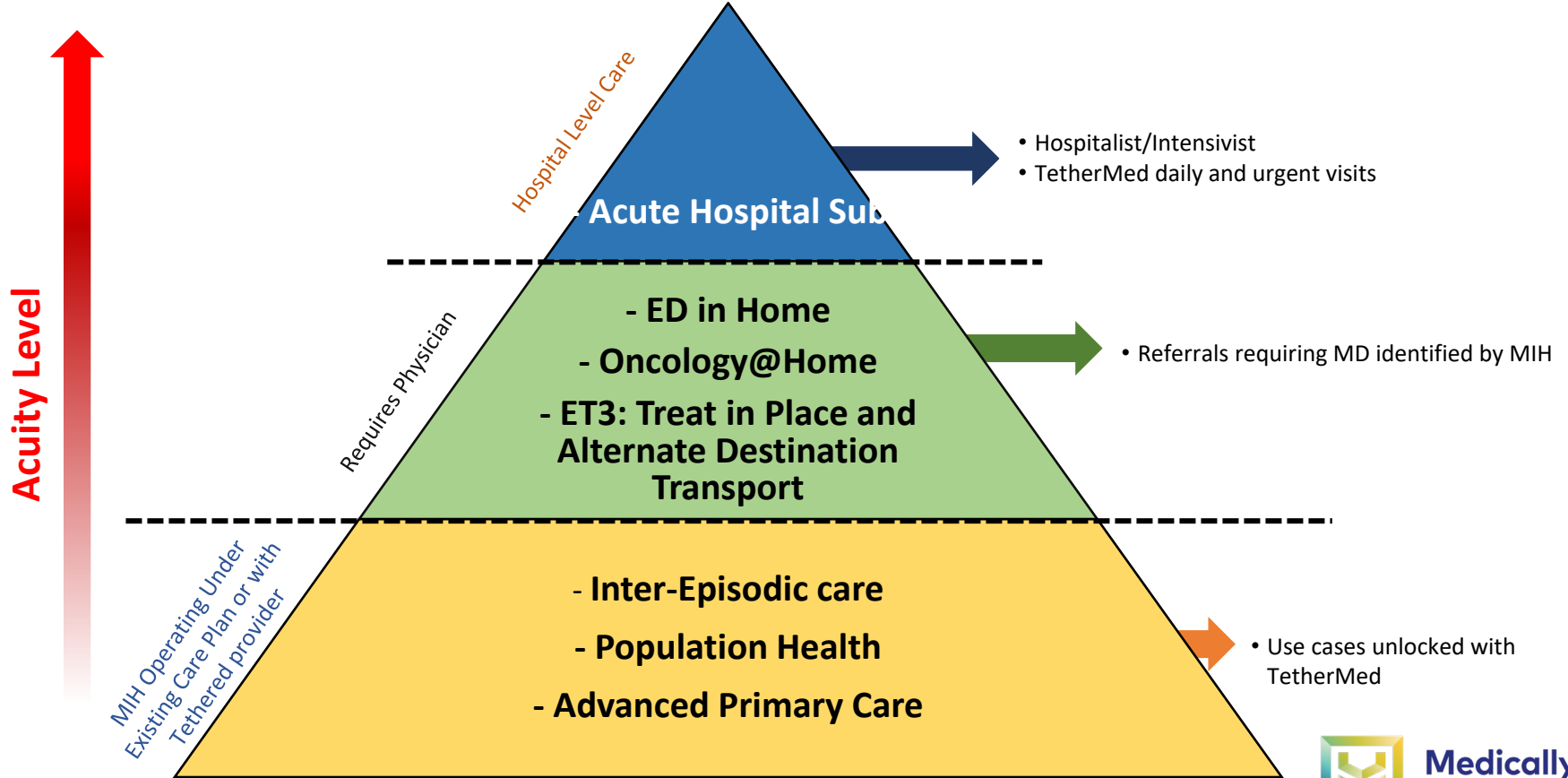
- Medically Home Customers
- Rural Health
- COVID response

- Health Systems
- Larger ACOs / Payers
- Rural Health
- COVID Response

- Physician networks
- ACOs/Payers/BPCI-A focus
- Health Systems
- State/local government
- Neighboring EMS systems



Market Use Cases Enabled



An “Effector Arm” for ACO providers

- Infrastructure already in place for existing and launching Hospital at Home programs
 - Zero startup cost for ACOs
 - Simple per-visit fee inclusive of all interventions (medications, labs, etc.)
- Same day or scheduled in advance – designed to keep patients thriving in their homes
- Example use cases:
 - Post-discharge follow-up for CHF – ability to evaluate, weigh, check a stat creatinine, administer IV Lasix
 - Pneumonia or cellulitis resistant to oral antibiotics – administer IV antibiotics to avoid hospitalization
 - Mild confusion in an elderly patient – urine dip diagnosis of UTI, IV fluid and first dose antibiotic administration with follow-up visit documenting improvement the following day (in clinic or in home)
 - Any other use case identified by PCP after hours or on weekends when it is difficult to see a patient semi-urgently



Medically
Home®

Aiming to improve Equity

- Paramedic/MIH providers are from the same communities where patients live
- Partners actively incentivizing paramedic training through local community college programs
 - Community MIH providers with appetite for increased accountability and input in advanced primary care and population health
- Background in 911/EMS provides critical experience and comfort level entering any home and treating any patient in the community
- Evidence from recent Hospital at Home studies shows that lower socioeconomic status patients are more severely impacted by transitions of care location



The Future of Health is Digital Care



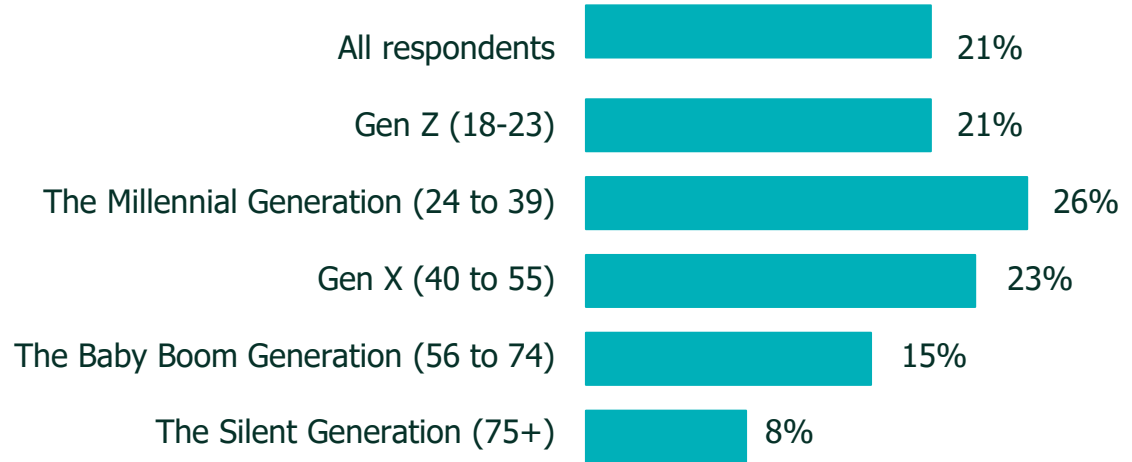
Kapil Parakh,
MD, MPH, PhD
04/28/2022



Who owns wearables?

21% of US online consumers

“Do you use wearable devices?”
Smartwatch or fitness tracker



Base: 142,480 US online adults
Source: Forrester Analytics Consumer Technographics®
Benchmark Survey, Part 1, 2020

Source: Forrester, [Consumer Wearables Generate Good Data, But It's From The Wrong Consumers — And It's Not Helping Healthcare Providers](#)



Wearables across the care continuum



Employee Health & Wellness

Provider Burnout & Retention

Research

Population Health

Promoting health & wellness

Cardiometabolic Health

Weight management

Lifestyle behavior change

Chronic Disease Support

Metabolic Health

Heart Health

Promoting healthy lifestyles in patients

Primary Care

Speciality Care

Wellbeing at Home

Pre/Post Op Support

RPM

Community & Rural Health Support

Understanding lifestyle metrics in virtual and on site settings

Wellness programming

Direct-to-Employer

Patient engagement is important



Patients will be a critical part of the care team of the future



Important to meet them where they are

According to Forrester, connected health experiences bring another source of information beyond the patient

It is expected that patients may occasionally mislead their physicians, but a 2018 WebMD article cites that “doctors think patients tell the truth 2/3 of the time, but patients tell the truth less than a 1/3 of the time.”

Wearable data may provide crucial information that gives healthcare professionals a more complete view of their patients.



Wellbeing is
important for
patients...
and providers

Digital health tools can support providers



Doctors, nurses etc
have exhaustion and
burnout (1)



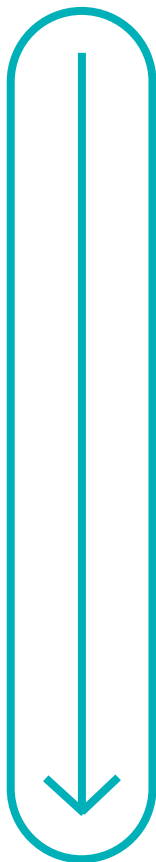
Both systemic and
individual factors
involved (2)



Technology can play
a role in improving
health & wellness

(1) <https://www.ama-assn.org/practice-management/physician-health/physician-burnout-which-medical-specialties-feel-most-stress>

(2) <https://pubmed.ncbi.nlm.nih.gov/34559421/>



A historical perspective

- 1975 Resident doctors in New York go on strike and call is reduced to every third night
- 1984 Libby Zion dies
- 1987 Bell commission sets 80 hour work week for NY
- 2003 ACGME sets 80 hour work week for all trainees
- 2011 ACGME restricts interns to 16 hour shifts
- 2022 Dr. Lorna Breen Health Care Provider Protection Act

Medscape Physician Burnout & Depression Report 2022

For many physicians who are burned out, the impact is profound.

54%

Indicate burnout and its effects have strong/severe impact on their lives

How do physicians cope?

48%

Exercise

45%

Isolate from others

41%

Talk with family or friends

41%

Sleep



The Role of Wearables

Intervention - *improving wellness*

Example: Improvements in overall wellness and physical activity in a pilot study of emergency medicine residents⁽¹⁾

Prediction - *identifying vulnerable groups*

Example: Day-to-day variability in sleep parameters predicts poor mental health in a prospective cohort study of 2,115 training physicians⁽²⁾

(1) <https://mhealth.jmir.org/2017/1/e2/>

(2) <https://www.nature.com/articles/s41746-021-00400-z>

VA



U.S. Department
of Veterans Affairs



Pilot Program

Orlando VA Health Care System's (OVACHS)

- 50 float pool nurses
- Incorporating a wearable into their work unit & daily routine
- Intended to promote whole health amongst participants
- Nurses noted the program made them more physically active including outside of work with their family and improved their mood
- *More research is needed to confirm and expand these initial observations*

Source: <https://www.va.gov/orlando-health-care/stories/ovahcs-pilots-fitbit-innovation-to-benefit-employees/>

Thank you

If you have any questions, please reach out to kparakh@google.com