Digital Health and Oncology: Towards Connected Cancer Care
Sangeeta Agarwal, RN, CAS, MS, Founder, Helpsy

MASCC/IS00
Annual Meeting on Supportive Care in Cancer
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Conflict of Interest Disclosure
Sangeeta Agarwal, RN, CAS, MS

- Founder and CEO of Helpsy Health
Cool view → $5,000/month for a studio
Cool view → $5,000/month for a studio
Cool view → $5,000/month for a studio
Yoga → $40/class
Let your suffering drive you to alleviate that of others
Actionable Hope =

Reliable Plan

+ Access

Motivation & Ease of Use

+ Connection

Where Evidence-Based=TRUE
- Video Diagnostic Consultation
- Remote Doctor/Specialist Services
- Distance Learning/Simulation
- Retail Telehealth
- Teleimaging

- Home and Disease Management Monitoring
- Activity Monitoring
- Diabetes Management
- Wellness Programs
- Remote Cardiac ECG
- PERS
- Medication Management

- Electronic Health Records (EHR)
- Health Information Exchange (HIE)
- Patient Portals
- Hosted Cloud Infrastructure

- Professional Apps
- Wellness Apps
- Fitness Apps
- Texting Informational Services
Figure from: Reengineering Healthcare Delivery Through Innovation, Dr. Richard V. Milan, MD, Oshner Health System (HiMSS 2019)

**Level 1**
Disengaged and overwhelmed

Individuals are passive and lack confidence. Knowledge is low, goal-orientation is weak, and adherence is poor. Their perspective: “My doctor is in charge of my health.”

**Level 2**
Becoming aware, but still struggling

Individuals have knowledge, but large gaps remain. They believe health is largely out of their control, but can set simple goals. Their perspective: “I could be doing more.”

**Level 3**
Taking action

Individuals have the key facts and are building self-management skills. They strive for the best practice behaviors, and are goal-oriented. Their perspective: “I’m part of my health care team.”

**Level 4**
Maintaining behaviors and pushing further

Individuals have adopted new behaviors but may struggle in times of stress or change. Maintaining a healthy lifestyle is a key focus. Their perspective: “I’m my own advocate.”

Increasing Level of Activation
Readmitted within 30-days of discharge
Experienced a medical error
Have poor care coordination between providers
Suffer a health consequence due to poor provider communication
Lose confidence in the healthcare system

More activated
Less Activated
Lack of clarity on

- What to do?
- Who to call?
- No emotional support
- No social support
- No continuity
- No connection
Doctors Spend a Minority of Work Hours with Patients
Fatigue and Administrative Burden Tightly Linked

Job Time Allocation in the Ambulatory Setting

- **Time in the clinic spent on direct patient care**: 27%
- **Everything else**: 73%
  - 38% EHR documentation and review
  - 19% Administrative tasks related to insurance or billing
  - 11% EHR review of tests, medications or other orders
  - 6% Clinical planning and logistics

_and this doesn't include:_
- Self-reported 1 to 2 hours of evening time spent on administrative tasks
- 39% of “patient-facing time” spent in the EHR

Source: Sinsky, Christine, MD; Lacey Colligan, MD; Ling Li, PhD; Sari Reynolds; Lindsey Goeders; Johanna Westbrook, PhD; Michael Tutton, PhD; and George Bixler, MD. “Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties.” Annals of Internal Medicine 165.11: 753-60. 6 Dec. 2016. Web. 21 Feb. 2018. Gist Healthcare analysis.
"The use of technology to engage patients in their own well-being will be a significant part of healthcare in the future. We want to help guide people through their questions and not let technophobia stand in their way."

Richard Milani, MD
Medical Director, iO
Chief Clinical Transformation Officer, Ochsner Health System
Vice-Chairman, Department of Cardiology
A randomized controlled trial of a novel artificial intelligence-based smartphone application to optimize the management of oncology patients.

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<td>IDH2</td>
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A digital pill — a medication embedded with a sensor that can tell doctors whether, and when, patients take their medicine.
Combating Chronic Disease through the Social Determinants of Health

Reducing the impact of chronic diseases will require payers and providers to get to the root causes of long-term illness, many of which are attributable to the social determinants of health.
AHIP launches social determinants initiative

SHELBY LIVINGSTON
FROM HEAD TO TOE WEARABLE TECHNOLOGY

SHIRT
Conductive thread means a complete system literally built into the fabric of the shirt, providing the power for all the other wearable gadgets.

WAISTBAND
A sensor that tracks movement to determine the number of steps taken through the day—no batteries needed—and how much sleep the wearer gets at night.

HAND
Embedded under the skin is a chip containing medical records, passport data, and credit records. Information is transmitted by waving the hand near a suitable scanner.

TROUSERS
Also made with conductive thread, the trousers take in the energy generated by movement and use it to power the other gadgets.

SHOES
GPS chip provides directions using LED lights on each shoe: left and right, above and below.

The Multinational Association of Supportive Care in Cancer • A Multidisciplinary Society for Research and Education
CMS Proposes More Medicare Reimbursement For Telehealth, RPM

CMS' proposed 2019 Medicare Physician Fee Schedule and Quality Payment Program includes coverage of telehealth-based check-in services and support for remote patient monitoring programs.
Smartphone ownership by age group (2015-2018)

- **65+**: 2015 - 30%, 2016 - 42%, 2018 - 46%
- **50-65**: 2015 - 58%, 2016 - 74%, 2018 - 73%
- **30-49**: 2015 - 83%, 2016 - 88%, 2018 - 89%
- **18-29**: 2015 - 86%, 2016 - 92%, 2018 - 94%

Willing to fill a medication prescription prescribed by an MD: 2018 - 66%
Willing to use an app prescribed by an MD: 2018 - 90%
Whole-Health Care Plan

Support Services

Emotional Health

Social Connections

Physical Health

San
THE MOBILE NURSE
Support your patients (24/7)
at their convenience and yours.

Hi! This is SAN. How are you feeling today?
I am reviewing your symptoms and noticed your nausea is getting worse. Is that still true? (Y/N)
Find your formula!

Actionable Hope =

< Duration of incidence >

Reliable Plan

+ Access

Motivation & Ease of Use

Connection

Where Evidence-Based=TRUE

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DIG DEEPER

Thank you!

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