Key Trends Impacting the Future of Cancer Care

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The World Is Starting to Look Very Different

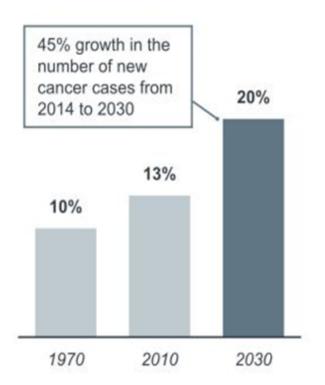
Six Trends Shaping Cancer Care

- 1 Cancer is the number one killer in 22 states (and counting)
- 2 We are on our way to being a majority-minority country
- 3 Health care reimbursement and reform are at a turning point
- 4 Telehealth is breaking down cancer center walls
- 5 Health care "consumers" demand evidence of cost and quality performance
- 6 Genomic medicine is revolutionizing cancer care

Cancer Becoming the Number One Killer in America

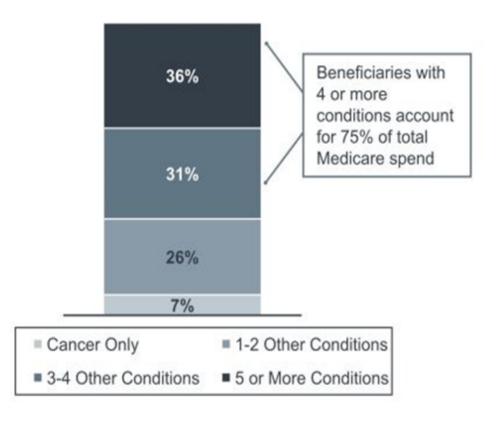
Caring for an Older, More Complex, and More Costly Population

Estimated Percentage of the US Population Age 65 and Over



Percentage of Medicare Cancer Patients with Comorbidities

2015



Source: Colby St., Ortman JM, "The Baby Boom Cohort in the United States: 2012 to 2060," U.S. Census Bureau, May 2014, https://www.census.gov/prod/2014pubs/p25-1141.odf; Medicare Chronic Conditions Dashboard, https://www.cens.gov/Pesearch-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Dashboard/Chronic-Conditions-State/CC State Dashboard.htm; Oncology Roundtable interviews and analysis.

The Impact on Cancer Programs

Preparing for an Aging and Polymorbid Population

Focus on Top-of-License Practice and Multidisciplinary Care



Provide coordinated, multidisciplinary care



Grow cross-service line specialties (e.g., cardio-oncology, geriatric oncology)



Ensure top-of-license practice across the care team



Improve transitions back to primary care

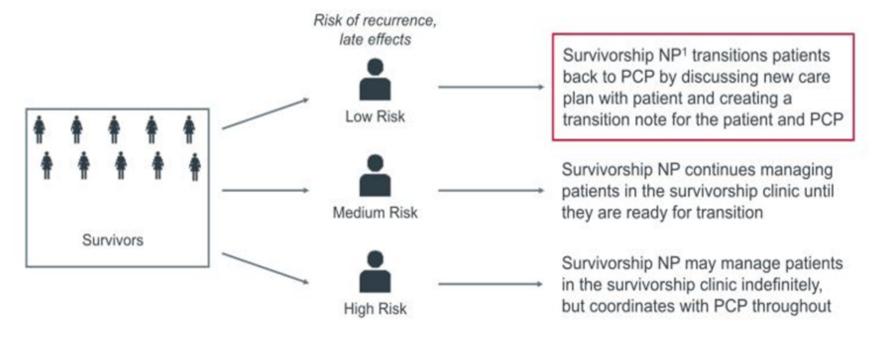


Build the oncology workforce pipeline via outreach, community education, and rotations

Triage Survivors to Optimal Site of Care

Transitions Save Oncologists Time for Their True Specialty

Risk-Based Stratification of Survivors at Memorial Sloan Kettering



Steps to Prepare Patients for Transition



Explain active treatment and post-treatment care plans to patients at the start of treatment



Reiterate transition plan as patients approach treatment completion and set patient expectations about recovery



Assure patients that the cancer center will remain a resource to them after their transition

Nurse practitioner.

Transitions Going Smoothly

Survivors and PCPs Comfortable with Management



Data Supports Risk-Based Approach

.02%

Percentage of breast cancer survivors transitioned to their community PCP over a 22-month period who required a return visit at Memorial Sloan Kettering



Care Plans Proving Useful

33%

Percentage of PCPs surveyed who reported that they would change their plan of care for survivors based on information in the survivorship care plan



Oncology Roundtable Related Resources

Tactics to Support PCPs:

- PCP-Led Survivorship Care
- Engage Primary Care Providers
- Further the Primary Care Partnership
- Survivorship Interview Guide for PCPs
- Survivorship Education Resources for Primary Care Providers

Tactics to Support Survivors:

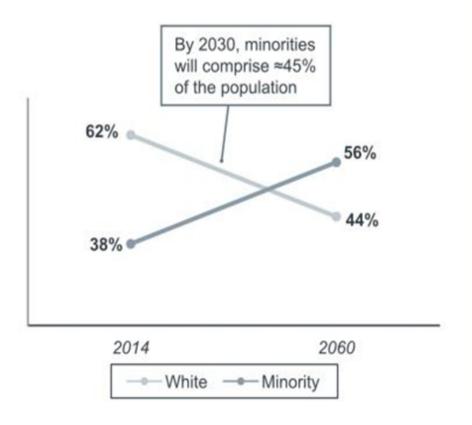
- Prepare Patients for Survivorship
- Prepare Cancer Patients Early for the Transition to Survivorship

US Set to Become 'Majority-Minority'

Crossover Expected to Occur in 2044

Distribution of the US Population

National Projections





Health Disparities a Major Issue

of deaths among
Hispanics in 2014 were
cancer-related, making it
the leading cause of death
for Hispanics in America

1.4x more likely Hispanic women are to die from cervical cancer compared to white women

higher death rate for blacks than whites for all cancers combined

The Impact on Cancer Programs

Caring for an Increasingly Diverse Patient Population

Start Building a Diverse, Culturally Competent Workforce Now



Train culturally competent staff and clinicians



Build a pipeline to assemble a workforce that is representative of the community served



Ensure access to resources and specialists to address specific populations' challenges¹



Related Resources

Find resources to help your team at our new resource page:
The Health Disparities Initiative

Examples include access to interpreters and specialized resources for transgender patients.

Equip Staff to Identify and Address Disparities

ACCURE Program Closes Racial Gap in Lung Cancer Treatment

Components of ACCURE¹ Program

1 Missed Appointment Alert

Leverage EHR to alert providers when patient misses an appointment or treatment milestone

2 Trained Navigators

Use nurse navigators trained to deal with race-related barriers to care

3 Provider Feedback

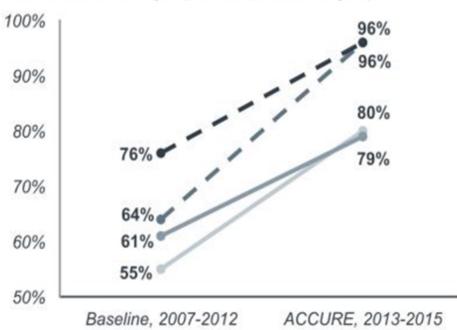
Present race-specific feedback on treatment to care teams

4 Staff Education

Conduct health equity training sessions every three months for health care staff

Treatment Rates by Race for Lung Cancer Patients at Baseline and in ACCURE Group

For Resection Only and Resection Plus SBRT² n=2,044 in baseline group; n=100 in ACCURE group





Source: Casey B, "ASTRO: Outreach Boosts Radiation Therapy Rates for Blacks,"AuntMinnie.com, http://www.auntminnie.com/index.asox?sec=rws&sub=rad&paq=dis<emID=115211; Oncology Roundtable interviews and analysis.

¹⁾ Accountability for Cancer Care Through Undoing Racism and Equity.

²⁾ Stereotactic body radiation therapy.

Reimbursement and Reform Are at a Turning Point

Congress Choosing Between Payment Reform and Payment Cuts

Continue Payment Reforms

Providers accept alternative payment models and move rapidly away from fee-forservice status quo



Shift to Payment Cuts

Providers remain in fee-forservice but face ever-more stringent reimbursement cuts



Strategic Imperatives

- · Business model transformation
- Integration and system-wide care coordination
- Risk-based contracting strategy



Strategic Imperatives

- Radical cost-efficiency
- Asset and service rationalization
- Fixed cost restructuring

The Impact on Cancer Programs

Transitioning to Risk-Based Payment

Cancer Leaders Need to Build Nimble Programs and Manage Change



Create a nimble organization that can adapt to unexpected and swift regulatory changes



Evaluate staffing and operations to gain maximum efficiency



Focus on prevention, informed screening, survivorship, and end-of-life care



Provide proactive symptom management, navigation, and coordination across sites of care

The OCM Basics

Overview of the Oncology Care Model (OCM)

Who is participating?

- 179 medical oncology practices
- 13 payers
- CMS

How are practices paid?

- Fee-for-service payments for all services to enrolled beneficiaries
- Monthly enhanced oncology services (MEOS) payment of \$160 for six months upon initiation of chemo
 - If the patient continues or resumes chemo, practice can trigger subsequent episodes
- Performance-based payment provided if practice reduces beneficiaries' total Medicare billings and meets threshold for quality performance
 - Quality measured relative to other practices
 - Cost performance is evaluated against historic performance

How are practices taking on risk?

- One-sided risk arrangement (4% discount)
- Two-sided risk arrangement (2.75% discount with potential for higher performance-based payments)
 - Available starting
 January 1, 2017
- By fourth reconciliation period (mid-2018), practices that have not achieved performance-based payment must exit the model or opt for two-sided risk



The Results Are In

Participants Approaching Critical Decision

Timeline of the Oncology Care Model (OCM)

July 1	NovDec.	March 3		July-Dec.		JanJune		Summer	
OCM begins with 190 participating practices	OCM registry available to report clinical and quality data	quality ar	to submit nd clinical Measurement (limited	Performance Period 2		Performance Period 3		Practices not hitting cost goals must enter two-sided risk or drop out	
2016		2017		10-		2018		2019	
July-Sept. Measurement Period 1	December 5 Deadline for electing two-sided risk model with start of January 1, 2017	JanJune Performance Period 1	April 1 Deadline for electing two-sided risk model with start of July 1, 2017		October 1 Deadline for electing two-sided risk model with start of January 1, 2018		February Reconciliation of performance-based payment for Performance Period 1		



25%

Of OCM participants received a performance bonus¹ M

≈50%

Of OCM participants reduced costs below their historical benchmark even if it was not enough to qualify for a bonus

https://www.cms.gov/Newsroom/MediaReleaseDatabase/Press-releases/2016-Press-releases-items/2016-10-25.html
"Oncology Care Model Overview," Association of Community Cancer Centers, http://doi.accc-cancer.org/advocacy/OCM-Overview.asp; Strawbridge L, ACCC Oncology Care Model Collaborative Workshop at the ACCC 44th Annual Meeting and Cancer Business Summit, Washington, DC, March 16, 2018; Oncology Roundtable interviews and analysis.

To receive a bonus, participating practices must have spent less than
their target price, which is equivalent to the episode of care benchmark
with a 4% discount. This benchmark is adjusted for historical data,
geographic variation, and performance period trends.
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Significant Barriers to Entry

Requirements Leave Significant Room for Interpretation

OCM Practice Requirements

Provide 24/7 patient access to a clinician who has real-time access to their medical records

Use of EHRs and reporting on Advancing Care Information measures

Use data for continuous quality improvement

Provide for the core functions of patient navigation

Document comprehensive
care plan that contains IOM's
13 recommended components

Adhere to nationally recognized clinical guidelines

Target Navigation to Patients Who Will Benefit Most

High-Need Patients at UAB Receive More Frequent and Intense Support

Characteristics of Navigated Patients at UAB

High-Risk Patients Contacted at least once a week by navigator

- Comorbidities
- Poor prognosis
- Specific medications

- High distress
- Lack of support
- Advanced or complex disease

Medium-Risk Patients Contacted at least once a month by navigator

- · Accepted navigation
- Active treatment
- · Distress indicated
- Socioeconomic need

Low-Risk Patients Contacted at least every three months by navigator

- Refused navigation
- No or low distress
- Robust social support
 Completed treatment



Navigator performs distress screening during outreach to identify and resolve patient issues

Worth the Investment

UAB Demonstrated Significant Decrease in Utilization from Navigation

RESOURCE UTILIZATION

6%

Additional decrease in **ED**visits per quarter for
navigated patients¹

8%

Additional decrease in hospitalizations per quarter for navigated patients¹ 11%

Additional decrease in ICU admissions per quarter for navigated patients¹

COST SAVINGS

\$781

Additional reduction in total costs of care for each navigated patient¹ per quarter²



Approximate **total savings** for all navigated patients across the network in one year

Visit advisory.com/or/navigation for all of our resources

¹⁾ Compared to non-navigated patients.

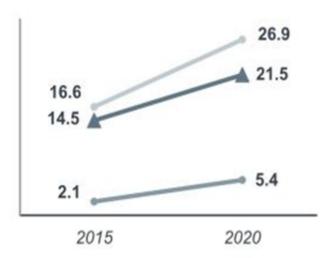
²⁾ Excludes Part D claims.

Telehealth Is Breaking Down Cancer Center Walls

Expanding Access and Enabling Real-Time Information Sharing

Estimated Growth in Virtual Consults

Millions of Visits in the US







Introducing Doctor Fitbit

"Five to ten years down the line, the power of these devices to help consumers, health care providers, the whole health care ecosystem track and give diagnoses to people—I think it's incredibly tantalizing."

James Park, CEO, Fitbit



Estimated growth in the global market for smart wearables, including activity trackers and smartwatches, between 2016 and 2020

Source: Japsen B, "Doctors' Virtual Consults with Patients to Double by 2020," Forbes, August 9, 2015, http://www.forbes.com/sites/bruceiansen/2015/D8/09/as-telehealth-booms-doctor-video-consults-to-double-by-2020/ii/2d4da38/75d68: Lamkin P, "Wearable Tech Market to Be Worth \$34 Billion by 2020," Forbes, February 17, 2016, <a href="http://www.forbes.com/sites/paullamkin/2016/02/17/wearable-tech-market-to-be-worth-34-billion-by-2020/ifed1133a3fe3:"Doctor Fitbil": How the Wearables Company Sees Its Future," The Daily Briefing, April 20, 2016, https://www.advisons.com/sites/briefing/2016/D4/20/how-the-wearables-company-sees-its-future Oncology Roundtable research and analysis.

The Impact on Cancer Programs

The Growing Use of Telehealth

Leverage Telehealth to Enhance Efficiency, Improve Patient Engagement, and Collect Patient Data



Build and train a workforce comfortable with and skilled at using technology



Invest in technology specialists and support staff



Invest in data security and management specialists



Provide ongoing patient and provider education

Think Different

Cooper and Polaris Health Partner to Elevate Patient Engagement

Breast Cancer Patient Pilot at MD Anderson Cancer Center at Cooper

Inputs



Outputs

Watch Automatically Collects:

- · Heart rate
- · Steps
- Time standing
- Active calories

Patients Report:

- Physical symptoms
- Distress
- Sleep

Apple Watch

Care Team Receives:

- Dashboard color coded by severity of patient needs
- Email alert when patient meets criteria for follow-up
- · Data over time

Patient Receives:

- Weekly dashboard of data
- Daily summary of physical and behavioral health

Extending Care Beyond the Office

Provide Real-Time Information and Motivation

emPOWER App on Apple Watch



After surgery there were days when I wanted to be in bed all day but this app made me get up and move...I wish the trial started six months earlier...

Breast Cancer Survivor

Considerations for Scaling Pilot

- · Technology infrastructure and support
- Triage protocols for identified patient needs
- Funding beyond initial pilot
- · Impact on cancer center workflow

Patients Acting More Like Consumers

Disrupting Traditional Referral Patterns



Growing Price Sensitivity

- · Rising health care costs
- Patients shouldering larger portion of health care costs
- Patients developing habit of "shopping" for providers to maximize value of care



Increasing Access to Health Care Information

- Access to and use of the Internet now nearly ubiquitous
- More organizations publishing health care cost and quality data
- Growth in online communities and availability of patient reviews



- Patients gaining experience with retail clinics (e.g., Walgreens, MinuteClinic)
- Patients expect different type of doctor's visit

for Service

 Nature of patient-physician relationship changing; patients become more skeptical and empowered to make decisions about their care

Cost and Quality Data Can Be Overwhelming

Programs Need to Make Sure Information Is Empowering, Not Paralyzing

Cancer Patients Already Doing Their Research

41%

of cancer patients looked at provider reviews or quality performance websites while selecting a provider



of cancer patients spent over one hour researching specialists; highest among all specialty patient populations surveyed

Actual and Expected Availability of Provider Information

CMS expands PCHQR¹ program

Toda

PHCQA² publishes scores for five cancer care metrics online

Healthgrades includes Cancer CAHPS³ scores

Clinical pathways adherence reported publicly

National warehouse of survival data by provider published

2030

Consumer-facing tools allow patients to compare cancer providers' cost and quality

PPS-Exempt Cancer Hospital Quality Reporting Program.

Pennsylvania Health Care Quality Alliance.

³⁾ Consumer Assessment of Healthcare Providers and Systems.

The Impact on Cancer Programs

Increased Consumerism

Focus on Providing Education and Effective Communication



Train staff and clinicians to teach patients about quality measurement in cancer care



Train staff and clinicians to educate patients about the costs of care and provide necessary support



Prepare staff to become experts at persuasive communication

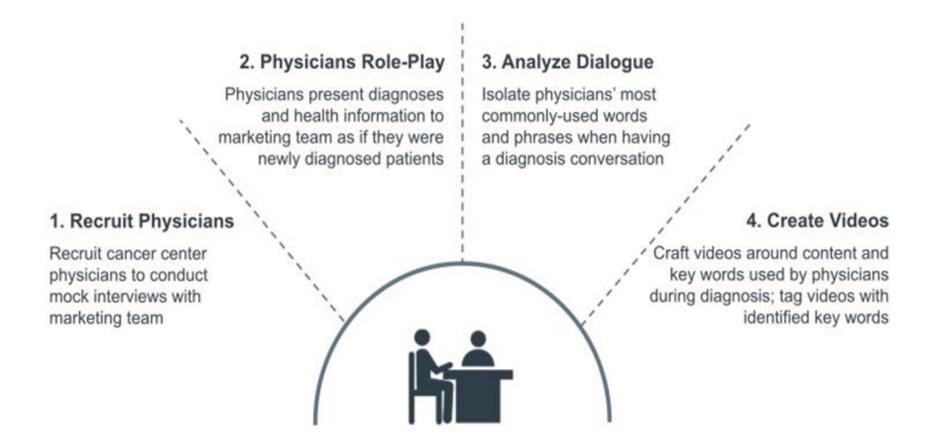


Invest in the services and expertise that patients in your community value most

Determine Patient Priorities

Nebraska Medical Center's YouTube Series Appeals to New Patients

Key Steps to Developing Nebraska's YouTube Campaign



Translating YouTube Hits into ROI

Use Comprehensive Analysis to Attract Patients Online

Nebraska's Analytical Approach to Patient Concerns

Analyze videos viewed to completion, including where viewers rewind content

Use analysis to develop new critical content and inform development of marketing materials

Determine key words and topics associated with critical content





Results Attributed to Nebraska's YouTube Campaign

18%

Increase in **oncology** volumes

16%

Increase above budget and year-to-year financial performance

Precision Medicine Complex and Rapidly Evolving

Precision Medicine

Proteomics

Liquid Biopsies Pharmacogenetics Checkpoint Inhibitors Patient Engagement Oncotype Dx *Immunotherapy* PARP Inhibitors Umbrella Trials Biomarkers Molecular Diagnostics Patient-reported Outcomes circulating tumor cells Clinical validity High-Risk Companion Diagnostics Genomics DNA CDK-4 Inhibitors shared decision making Targeted treatment

CAR-T Cell Therapy

Next-Generation Sequencing

Develop a Comprehensive Strategy

Precision Medicine Raises Many Thorny Questions

Five Imperatives for Precision Medicine

1
Evaluate the
Business Case for
Precision Medicine



2

Provide Support for Oncologists



3

Develop Patient-Centered Standards



4

Elevate the Role of Clinical Trials



5

Harness the Power of Data



Make It Easy for Patients to Participate

The Metastatic Breast Cancer Project (MBCP)

Social Media Outlets













>1K

patients signed up in first three months of launch

- Me In" Button on homepage
- · Patient completes an online form
- Patient clicks "Count Patient signs consent to enable MBCP to obtain medical record and stored tissue sample from treating institution
 - MBCP sends the patient a kit to collect saliva
- · MBCP sequences tumor and saliva samples
- · Results are shared with researchers
- · Patients are kept apprised of advancements and studies

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Thank you!

Questions?

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