Session 84X
Integrating Behavioral Health into Primary Care and Care Management

Presented by:
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Integrating Behavioral Health into Primary Care and Care Management

Carolinas HealthCare System

Disclosure of Relevant Financial Relationships

The following faculty of this continuing education activity has no relevant financial relationships with commercial interests to disclose:

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• Katie (Kathleen) Kaney, DrPH, MBA, FACHE
Presenters

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Senior Vice President, Behavioral Health

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Operational Chief of Staff

Learning Objectives

1. Students will identify opportunities for improvement and acquire the knowledge to design personalized programs to improve access, costs, and clinical outcomes within their own communities. Our methodologies are convertible and scalable depending on local resources and needs.

2. Students will articulate the business reasons for integrating behavioral health into primary care and identify the appropriate measurements to evaluate effectiveness.
Agenda

• Carolinas HealthCare System (CHS) Overview
• CHS Virtual Care Overview
• Care Management
• Behavioral Health Integration

Carolinas HealthCare System

Facility Locations

39 hospitals and 900+ care locations in NC, SC, and Ga

One of the largest HIT and EMR systems in the country

One of five academic medical centers in NC

The region’s only Level 1 Trauma Center

$1.5 billion in community benefit in 2013
WHY WE DO WHAT WE DO

MISSION
To improve Health
elevate Hope
and advance Healing - for all

VISION
To be the first and best choice for care.

Virtual Care
**TeleConferencing:**
The use of video and audio technology to deliver education, information, etc. from one central location to many remote locations.

- Clinical Conferences: 4,600 Hours, 15 sites
- MyCarolinas: ~238K Secure Messages
- THS: ~2.3 million calls

**TeleConsult:**
Telephone or Video Interface between Clinicians. May include access to patient data captured from monitoring devices.

- Clinical Conferences: 468 facilities and practices
- Poison Center: ~78K
- BT Call Center: ~137K
- Pharmacy (CC): ~23K

**TeleMonitoring:**
Remotely collecting and sending data for interpretation, such as a patient's vital radiology images, EKGs, etc.

- 19,000 Patients Monitored
- 344 Critical Care Beds Monitored
- 11 Acute Care Facilities

**TeleCommunication:**
Information Exchange between clinicians or between clinicians and patients, using email, texting, social media, web chats, etc.

- MyCarolinas: ~238K Secure Messages

**Other Services:**

- THS: ~2.3 million calls
- MyCarolinas: ~238K Secure Messages

**Virtual Care Modes:**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TeleCommunication</td>
<td>Information Exchange between clinicians or between clinicians and patients, using email, texting, social media, web chats, etc.</td>
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</tr>
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<td>TeleMonitoring</td>
<td>Remotely collecting and sending data for interpretation, such as a patient's vital radiology images, EKGs, etc.</td>
</tr>
<tr>
<td>TeleMedicine</td>
<td>A Legal Patient/Clinician Encounter using electronic communication technology, such as real-time, two-way audio and video</td>
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</tbody>
</table>

*Sample volume stats are projected based on YTD data thru April. 2016 Total: 5.1M - 2015 Total: 4,515,395

Source: Department specific data

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**CONNECTED CARE EVERYWHERE**

VIRTUAL HEALTH is the CONNECTOR

**KEEP ME HEALTHY**

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2017 CONGRESS ON HEALTHCARE LEADERSHIP

9
CHS Virtual Care Adoption

2010
TelePsych
LCI Genetic Counseling
BH Integration
Virtual Care Strategy Council Established

INTEGRATED CARE DELIVERY MODEL
2013
Radiology
Heart Success
CHS Urgent Care
Virtual Critical Care Care

2016
Telemetry
Virtual Visit
Specialty Service Expansion
On-Demand Care eReferral
Tumor Boards
Apps
Hospitalists
Virtual Visit & eVisit – Chronic Care & Management
Home
Infectious Disease
Pediatrics
Palliative Care
Patient Engagement
Monitoring
TeleStroke
MyCarolinas Tracker
eVisit – Acute Episodic
Orthopedics
Rounding
Telestroke
MyCarolinas Support Groups
Virtual Visit
Virtual Critical Care
Virtual Critical Care Patients, 264 total monitored beds

Virtual Care Operational Handbook Developed
Virtual Care Integration Toolkit Developed

CHS Virtual Care: 2016 Year in Review

- 5.1 million + patient interactions using “virtual care”
- 4,150 Virtual Visit patients (4.6 / 5 overall experience rating)
- 34% of patients report no evidence of depression following BHI Virtual Health Coaching
- 17 facilities now have access to TeleStroke services
- 20,500 + telemedicine encounters
- 22,800 + Virtual Critical Care Patients

Modern Healthcare
HealthIT.gov
The Washington Post
American Telemedicine Association
Journal of Clinical Sleep Medicine
Virtual Care Integration Process

1. Identify Care Gaps or Critical Goals
   - Virtual Care is a TACTIC to close a gap in care or resolve critical goals

2. Assess Virtual Care Opportunity
   - Available tools, benefits, feasibility, costs, and ROI will determine virtual care applicability and priority

3. Develop Integration Plan
   - Operational led workgroup comprised of both users and support resources develop process for integrating virtual care into care model

4. Implement Integrated Care Model
   - Go-Live with integrated model and report metrics

Care Management & Population Health
WHO WE ARE

Wellness/Illness Burden Pyramid

Catastrophic Conditions
Multiple Chronic Conditions
At Risk for Multiple Chronic Conditions
Stable
Healthy

2.3 MILLION 11 MILLION
Unique Patients  Patient Encounters

9 OUT OF 10
Outpatient Encounters

140,000 (6%)  6%
6% Complex and Chronic

61,000 Teammates  3,000 Providers

What is Population Health?
CHS Care Management Conceptual Model: Creating a Seamless Patient Experience

Putting the Patient at the Center
CHS Care Management Team Composition

**Social Worker**
- Navigation/Coordination
- Coaching

**Educators**
- Pro-active outreach

**Behavioral Health Provider**
- Diagnosis
- Treatment
- Communication
- Education
- Navigation
- Coaching

**Nurse Care Manager**
- Care plan development
- Medication adjustments
- Coaching, goal setting, motivational interviewing, behavior modification

**Health Advocate**
- Navigation/Coordination
- Pro-active outreach
- Facilitate referrals
- Coaching in support of care plan

**Pharm D**
- Injectable Med Titrations
- Med Adherence / Rec
- Poly Pharmacy, cost effective regimens

**2016 Care Management Measures**

<table>
<thead>
<tr>
<th>True North Measures</th>
<th>2015 Baseline</th>
<th>2016 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned Readmissions (x1000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preventable ED Visits (x1000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preventable Hospitalizations (x1000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Spend Per Member ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Cost Per Lives Under Care Management ($)</td>
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</tr>
</tbody>
</table>

| Objective Measures | | |
|---------------------|--------------|
| Patients Actively Care Managed in 2016 (#) | | |
| PMPM Cost Reduction (%) | | |
| TCM Revenue ($) | | |
| Patient Enrollment (%) | | |

**Quality Improvement Composite (#)**
- 50% of patients will show 50% reduction in PHQ-9 scores
- 90% of patients should be able to teach back med doses and frequency
- TBD% improvement in readiness score (pre and post CM intervention)
- 60% of patients who need financial assistance receive resources to address
- 90% of patients who access care issues receive resources to address

**CIN Care Management Contract (#)**
- Standard Approach: Programs Aligned (#)
  - LiveWELL
  - HEALTHWORKS
  - COPD Navigators
Behavioral Health Integration

Did you know?

One in four adults suffers from a diagnosable mental disorder. (BBR, n.d.)

The average annual Medicaid spend per person is only $4,000, but that jumps to $38,000 annually with one mental health and one substance use diagnosis. (Milliman, 2014)

Untreated mental health and substance abuse disorders cost the US $250-$500 billion per year. (Ingoglia, n.d.)

$193 billion per year in lost workplace earnings due to untreated mental illness. (Kessler, 2008)

Even beyond the United States, mental illness is the #1 cause of disability worldwide, vastly outnumbering those caused by cardiovascular disease and cancer. (WHO, 2016)

With proposer diagnosis and effective treatment, the recovery rate for patients with mental illness is 60-80%. (Clark, 2013)

But in today’s environment, the effective recovery rate is only 5-10% due to such limited resources and infrastructure. (Clark, 2013)
Psychiatry Workforce

US: **40,000 PSYCHIATRIST**

- Most are located in Urban Areas
- **Half** of all the counties in the US don’t have a single practicing Mental Health professional.
- **48%** of psychiatrists are over the age of **60**

Why Primary Care?

- Stigma is lower
- Greater than 50% of all psychotropics prescribed by PCP’s
- 70% of visits are Psycho-Socially related
- 64% of patients completing suicide saw their PCP within 30 days
IMPACT / Collaborative Care Model

2 year Randomized Control Trial:
1801 Adults with Depression

12 months:
• 50% reduction of depressive symptoms

45% IMPACT model 19% usual care participants

4 years
• $3,300 in savings in health care spend per patient

Repeated in 80 Randomized Trials

CHS Behavioral Health Integration
Our Model

“We’ve got your back”

What we want to accomplish:

- Improve early detection
- Timely access to services
- Reduce unnecessary referrals to higher level of care
- Drive cost effective & clinically effective treatment
- Support the Primary Care Provider

“The key to making team-based medical care work...is helping the patient feel that his or her relationship with the primary-care provider is at its center.”

Suzanne Koven is a primary care doctor at Massachusetts General Hospital in Boston and writes the column "In Practice" at the Boston Globe.

Screening is the Driver

Standardized tools in the PCP setting enhance screening, diagnosis, and treatment planning.

Evidenced Based Treatment

Patient Engagement Recovery
Technology Utilized

Program Outcomes: Return on Investment

<table>
<thead>
<tr>
<th>Disease Severity</th>
<th>Clinical Outcomes</th>
<th>Healthcare Utilization</th>
<th>Cost of Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression symptoms</td>
<td>Weight/BMI</td>
<td>Inpatient visits</td>
<td>Overall</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>Hgb A1C</td>
<td>Inpatient days</td>
<td>Inpatient</td>
</tr>
<tr>
<td>Suicide ideations</td>
<td>Cholesterol (Total, triglycerides, LDL, HDL)</td>
<td>ED visits</td>
<td>Ambulatory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ambulatory visits (Primary/specialty)</td>
<td>ED</td>
</tr>
</tbody>
</table>
Reduction in Depressive Symptoms

<table>
<thead>
<tr>
<th>Study</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPACT</td>
<td>45%</td>
</tr>
<tr>
<td>Bauer M et al.</td>
<td>25% - 77%</td>
</tr>
<tr>
<td>CHS BHI</td>
<td>56.1%</td>
</tr>
</tbody>
</table>

Anxiety: PRE - POST

*Captures change within the same patient (pre-post analysis using paired t-test procedure).
*p-value <.05 indicates statistically significant change.

Suicide Ideations: PRE - POST

*Based on Question 9 of the PHQ-9 Scale.
*p-value <.05 indicates statistically significant change.
HgB A1C

Lipids: Total Cholesterol

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (± Standard Deviation)</th>
<th>Mean change (± Standard Deviation)</th>
<th>p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline HgB A1C</td>
<td>8.6 (±2.4)</td>
<td>6 months: 7.7 (±1.9)</td>
<td>↓ 0.8 (±1.8)</td>
</tr>
<tr>
<td>Baseline lipids</td>
<td>177.0 (±42.8)</td>
<td>6 months: 166.8 (±42.3)</td>
<td>↓ 10.2 (±37.9)</td>
</tr>
</tbody>
</table>

* p-value < .05 indicates statistically significant change (statistical significance doesn’t always indicate clinical significance)


Incremental Salary Expense - $1,343,936 salary and benefits

BHI by the Numbers
- 7,288 Unique Patients
- 86,074 Patient Encounters
- 1,710 Patients currently under active mgmt.
- 21 Primary Care Practices
- 3 Pediatric Clinics
- 70 Care Mgmt Clinics

Existing Resources Utilized
- 1 Manager
- 1 Program Coordinator
- 10 BHPs + 2 PRN
- 11 Health Coaches

Per Patient Expense = $184

*Expense does not include Psychiatrist or Pharmacist
Cost/FTE Ratio Per 600 Patients

Burke et al.; BMC Health Serv Res 2013, 13:245

Behavioral Health Service Line Net Margin per Adjusted Discharge

Note: (1) Baseline assumes BH-C, Charlotte Psychiatry, NE Psychiatry, and Metro;
(2) Metro includes BH services at CMC, CMC-Mercy, CHS-P, CHS-Univ, CHS-Union/1st Step, and CHS-NE
Key Takeaways ….

This work puts the patient first always – integrated into the full continuum, including prevention and community health

**Standardized work** in development and being refined (incl. teammate expectations and tools that need to be followed)

Utilize **data analytics** to drive focus and improve outcomes

**Coordination is essential**: expectation that as a team… we make sure this happens 100% of the time

Efforts to **scale** will be **critical for success** – we will prioritize to ensure this happens

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Video

[Video Image]
Martha Whitecotton, R.N., MSN, FACHE
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Martha Whitecotton is the Senior Vice President of Behavioral Health Services at Carolinas HealthCare System. She is responsible for strategic development, execution and oversight for the Behavioral Health Service Line for Carolinas HealthCare system across all care settings as well as physician services.

Prior to assuming this role, Ms. Whitecotton served as the President of Levine Children’s Hospital with responsibility for hospital operations, emergency services, and ambulatory specialty care.

Ms. Whitecotton earned her Masters Degree in Family Nursing from West Texas State University and also received her BSN from West Texas State University. She completed a Nurse Executive Fellowship in 2005 at the Wharton School, University of Pennsylvania. Ms. Whitecotton is a Fellow in of the American College of Healthcare Executives, and a member of the Sigma Theta Tau Honor Society.

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Dr. Katie Kaney is the Operational Chief of Staff for Carolinas HealthCare System focused on operational excellence and overall integration of services across the continuum to serve the patient and community. She has experience in population health, acute care, ambulatory, emergency services, care management and virtual care. Katie also represents CHS in the community serving as co-chair of Healthy Charlotte and Mecklenburg County EMS, understanding community integration is key to value based care and improvement of population health. She is a Fellow through the American College of HealthCare Executives and was named 2015 Most Influential Women in Charlotte, 2010 ACHE Regents Award Winner for NC, 2005 Modern Healthcare Up and Comer and 2004 40 under 40 by the Charlotte Business Journal.

Katie was the executive sponsor of the inaugural CHS Women’s Executive Leadership Development program.
Bibliography/References


World Health Organization (WHO). “Depression Fact Sheet.” who.int April 2016. Web