Population Health Management: The Role of the Pharmacist

KENTUCKY PHARMACISTS ASSOCIATION
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Disclosure

- Melinda C. Joyce declares that she has nothing to disclose for this presentation
Objectives

1. Describe population health management
2. Review where and how population health management strategies are being used
3. Discuss why there is an important role for pharmacists in population health management
4. Examine ways for pharmacists to be an integral part of population health management
Health

A state of complete...
Physical
Mental
Social
Well being

Not merely the absence of disease and infirmity

World Health Organization, 1946
What is Population Health?

- Population health has been defined as:
  "the health outcomes of a group of individuals, including the distribution of such outcomes within this group"

- Population health is not just the overall health of a population but also includes the distribution of health.

- Populations can be geographic
  - Nations
  - Communities

- Populations can be any other defined groups
  - Employees
  - Ethnic groups
  - Persons with a particular chronic illness
What is Population Health

- Medical care is only one of the many factors that affect these outcomes

- Other factors include:
  - Public health interventions
  - Aspects of the social environment (income, education, employment, social support, and culture)
  - Physical environment (urban design, clean air and water)
  - Genetics
  - Individual behaviors
Many health improvement models have identified two broad outcome goals:
- Increasing overall of mean population health
- Eliminating disparities within the population

Generally, for population health, two components are displayed:
- Mortality (length of life)
- Morbidity (quality of life)

A common goal for population health management is to “increase the quality and years of healthy life”
National Quality Strategy

Better Care for Individuals

Better Health for Populations

Financial Stewardship

Triple Aim
Institute for Health Improvement
Triple Aim

“The Institute for Healthcare Improvement (IHI) believes that focusing on three critical objectives simultaneously can potentially lead us to better models for providing healthcare.”

1. Improve the health of the defined population
2. Enhance the patient care experience (including quality, access and reliability)
3. Reduce, or at least control, the per capita cost of care
Six Goals of the CMS Quality Strategy

- Make care safer by reducing harm caused in the delivery of care
- Strengthen person and family engagement as partners in their care
- Promote effective communication and coordination of care
- Promote effective prevention and treatment of chronic disease
- Work with communities to promote healthy living
- Make care affordable
Healthcare Transformation

- Governmental and private groups have been developing new models of care and programs based on current and projected needs
  - Medical home model
  - Accountable Care Organizations
  - Team-based care
    - Clinically Integrated Networks
  - Healthy People 2020

- Individuals have expressed concerns about:
  - Access to care
  - Quality of care
  - Healthcare costs
  - Medication adherence
  - Medication safety
The U.S. spends more on health care than other industrialized countries.

Per capita spending
(Percentage of GDP)

Australia: $3,380 (8.9%)
Canada: $4,522 (11.2%)
Denmark: $4,448 (10.9%)
France: $4,118 (11.6%)
Germany: $4,495 (11.9%)
Netherlands: $5,099 (11.9%)
New Zealand: $3,182 (10.3%)
Norway: $5,669 (9.3%)
Sweden: $3,925 (9.5%)
Switzerland: $5,643 (11.0%)
United Kingdom: $3,405 (9.4%)
United States: $8,508 (17.7%)

Notes: Data is from 2011 or nearest year. Netherlands spending measured as current expenditure. New Zealand numbers exclude investments.
Source: OECD Health Data 2013
Healthcare Spending per capita vs. Average Life Expectancy Among OECD Countries

- **Japan**
- **S. Korea**
- **Mexico**
- **Hungary**
- **UK**
- **USA**

**Linear Trend line**

- **Total Expenditure on Health per capita in USD**
- **Average Life Expectancy at Birth (Years)**
Shifting from Volume to Value

Investment in both strategies required, but the challenge is finding correct balance.
Health Care Reform = Increased Risk & Accountability

- Pay for Performance
- Hospital-Physician Bundling
- Episodic Bundling
- Shared-Savings Model: ACO
- Cap

Risk

Accountability
Evolving Value-Based Contract Structure

- Global risk/Capitation
- Shared savings with downside risk
- Shared savings/global budgets
- Primary care management fees
- Bundled Payment for episodes of care
- Bundled Payment for acute care
- P4P/Value-based purchasing
- Inpatient case rates (e.g., DRGs)
- Fee for Service
Bundled Payment Care Initiative

- Pilot project from CMS to encourage providers to work together to manage disease episodes across the continuum of care.

- In the pilot project, the payment to providers is not impacted.
  - Hospital (or “convener”) agrees to discount Medicare reimbursement for selected episodes of care (2%).

- Providers work together to improve outcomes while reducing utilization – achieving the “Triple Aim”.

- Looks at the costs of the anchor stay (the patient’s inpatient admission) and then the next 90 days.
  - The cost is the amount of expense incurred by Medicare.
  - Savings that are achieved are returned to the “convener” or the group that initiates the bundle.
Bundled Payment Care Initiative

- Medicare Part D is not included in the bundle
  - Appropriate medication use is still a critical factor

- Providers need to know how care is currently being provided across the continuum for the 90 days and how it can be improved

- Brings together providers, hospitals, and post-acute care providers, such as home health, skilled nursing facilities, and rehabilitation facilities

- CMS has identified 48 different “episodes” that can be included in bundled payment
What are some of the “Episodes”

- Acute myocardial infarction (DRG 280, 281, 282)
- Heart failure (DRG 291, 292, 293)
- Cardiac arrhythmia (DRG 308, 309, 310)
- COPD (DRG 190, 191, 192, 202, 203)
- Diabetes (DRG 637, 638, 639)
- Simple pneumonia and respiratory infections (DRG 177, 178, 179, 193, 194, 195)
- Stroke (DRG 61, 62, 63, 64, 65, 66)
- Double joint replacement of the lower extremity (DRG 461, 462)
- Fractures femur and hip/pelvis (DRG 533, 534, 535, 536)
- Hip and femur procedures except major joint (DRG 480, 481, 482)
- Major joint replacement of the lower extremity (DRG 469, 470)
- Knee procedures (DRG 485, 486, 487, 488, 489)
- Removal of orthopedic devices (DRG 495, 496, 497, 498, 499)
- Revision of the hip or knee (DRG 466, 467, 468)

Not a complete list
Making the Commitment to Population Health
Who?

- Hospitals and Health-Systems
- Large Physician Clinics
- Accountable Care Organizations
- Clinically Integrated Networks
- Medical Homes
- Insurance Plans
- Employers
- The Commonwealth of Kentucky
Hospital and Large Physician Groups

- Robust Employer-Sponsored Coverage
  - New Danger: Cost concerns, innovative options driving employers to restructure benefits; changes unlikely to yield health system advantage

- Steady Public-Payor Pricing Growth
  - New Danger: Medicare rate cuts

- Predictable Volume Channels
  - New Danger: Falling utilization rates coupled with non-traditional competition narrowing potential volume streams
## Options for Controlling Health Benefits Expense

<table>
<thead>
<tr>
<th>No Health Benefits</th>
<th>Defined Contribution/ Private Exchange</th>
<th>Self-Funded Benefits</th>
</tr>
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<tbody>
<tr>
<td><strong>Pros:</strong></td>
<td><strong>Pros:</strong></td>
<td><strong>Pros:</strong></td>
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<tr>
<td>- Total escape from cycle of rising premium costs</td>
<td>- Health benefits still part of compensation package</td>
<td>- Full control over networks</td>
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<td>- Predictable, controllable cost growth</td>
<td>- Exemption from minimum benefits requirements</td>
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<tr>
<td><strong>Cons:</strong></td>
<td><strong>Cons:</strong></td>
<td><strong>Cons:</strong></td>
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<tr>
<td>- Fine for violating employer mandate</td>
<td>- Fundamental disruption in benefit design</td>
<td>- Greater exposure to unexpected expenditures</td>
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<td>- Loss of important labor market differentiator</td>
<td>- Employees may underinsure</td>
<td>- Complex network negotiations</td>
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How?

- Redesigning Care Delivery Models
  - Identifying key patient groups
  - Designing systems to meet comprehensive patient needs
  - Bundled Payment Care Initiative (BPCI)
  - Managing transitions of care

- Prioritizing Investments
  - Ensuring the correct staffing deployment

- Catalyzing a Cultural Transformation
  - Involving staff at all levels
  - Linking goals to population health
What?

- The core of population health management is **Care Management**
  - Also sometimes referred to as Disease State Management or Case Management
  - Actually goes deeper than either of those

- Takes into account a wide range of patient problems
  - Chronic illness
    - Heart failure; COPD; Diabetes
  - Psychosocial needs
    - Depression; Dementia
  - Non-clinical needs
    - Lack of transportation; Financial concerns; Housing issues
Three Common Pitfalls of Care Management

1. Creating a single care model for all
   ▪ Targeting all resources to all patients is unnecessary and wasteful

2. Segmenting care by payor type
   ▪ Risks provider resistance or discomfort
   ▪ Does not allow for appropriate resource allocation

3. Focusing exclusively on high-risk patients
   ▪ High-risk patient care management is a good starting point but not the end state
   ▪ Need to work to keep those rising-risk patients from moving to a higher acuity
Care Management Team

- Primary Care Provider (PCP)
- Mid-Level Practitioner
- Registered Nurse
- Non-clinician employees
  - May focus on the first seven days after discharge
    - Make appointments
    - Make sure the patient has what they need at home
  - May visit patients in the home (community health worker; community paramedics)
    - May help patients navigate the healthcare system
- Social worker
  - May help with housing, meals, financial support
- Pharmacist
  - Necessary for appropriate medication management
Care Transitions and Handoffs

Patient
Multiple Conditions

Hospital In Patient
Hospital ED
Primary Care Home(s)
Specialist

Pharmacy Services
Clinical Pharmacy Services

HRSA Patient Safety and Clinical Pharmacy Collaborative
Managing Three Distinct Populations

- **High-Risk Patients**: 5% of patients; usually with complex disease(s), co-morbidities
- **Rising-Risk Patients**: 15-35% of patients; may have conditions not under control
- **Low-Risk Patients**: 60-80% of patients; any minor conditions that are easily managed
# Story of Three 61 Year Old Diabetic Males

<table>
<thead>
<tr>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
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</thead>
<tbody>
<tr>
<td>1. Principal diagnosis of diabetes</td>
<td>1. Principal diagnosis of diabetes</td>
<td>1. Principal diagnosis of diabetes</td>
</tr>
<tr>
<td>2. Prior hospitalization</td>
<td>2. Prior hospitalization</td>
<td>2. Problem with medications</td>
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<tr>
<td></td>
<td>3. Poor health literacy</td>
<td>3. Polypharmacy</td>
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<td></td>
<td>4. Little patient support</td>
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</table>

## Not high-risk

- High-risk due to social frailty
- High-risk due to pharmacy issues

<table>
<thead>
<tr>
<th>Not high-risk</th>
<th>High-risk due to social frailty</th>
<th>High-risk due to pharmacy issues</th>
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<tbody>
<tr>
<td></td>
<td>Perhaps home visits</td>
<td>Medication Therapy Management Services</td>
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</table>
High-Risk Patient

- High-risk patients are those complex patients with several diseases and co-morbidities
  - Takes on average 13 medications per day
- Have frequent trips to the ED and frequent admissions to the hospital
  - Average high-risk patient is hospitalized four times a year, not including ED visits
- High utilizer of healthcare resources
  - In 2010, the top 5% of patients account for more than 50% of spending
- But there may be more to the picture than thought
High-Risk Patient

• On the surface, it may seem that the high-risk patient’s condition is continuing to worsen because he is just not compliant with his medications.
• But, there may be many underlying problems
  • Behavioral health issues
  • Lack of transportation to the pharmacy
  • Unstable housing situation
  • Scarce funds spent on food
• All of these psychosocial and non-clinical issues must be addressed before a patient may be able to concentrate on their disease state and improve
Seamless Patient Experience

Through the use of Care Managers:
- The patient is identified as being high-risk
- Patient needs assessed
- Care plan developed
- Care plan implemented
- Care plan monitored

How does this differ from Medication Therapy Management?
What About the Rising-Risk Patient?

- It is often the risk factors, not disease states that predict future risk
  - Obesity
  - Depression
  - Smoking
  - High stress
  - Poor eating habits
  - Physical inactivity
  - Unemployment
Pharmacists Can Help to Identify Rising-Risk Patients

- Do they take their medications correctly?
- Are they taking the correct medications?
- Are they taking medications that are not necessary?
- Do they understand the need for their medications?
- Are they monitoring their disease state?
- Is their disease state under control?
Friends and Family Likely to Share Same Health Behaviors

- High-risk diabetic patient is enrolled in a diabetic education program but family is also required to attend.
- At the initial visit, diabetes testing was done and many of the family members were found to be pre-diabetic.
- The family members were not told of their lab values, but were encouraged to participate in the diabetes education to “help their loved one.”
  - Activities centered on healthy eating habits, physical activity, and making prudent choices.
- At various times during the program, lab tests were done on both the patient and family members and both groups saw drops in key metrics, such as HbA1C levels.
- This program showcased how to keep a low-risk or rising-risk patient from advancing to a high-risk status.
Friends and Family Likely to Share Same Health Behaviors

- Health navigators established “Hair, Heart, and Health” program to screen for diabetes and hypertension in local barbershops

- The program was designed to target populations that were at risk, but seldom had contact with the healthcare system

- Barbers were trained to promote the program and provide health education

- More acceptance of the health navigators when they came to the barbershop to do the screenings

MedStar Health in Columbia, Maryland - 2008
What About the Low-Risk Patient?

- Want to keep them healthy
  - Education is important
  - Preventive serves are important

- Generally younger
  - Like ease of accessibility
    - Retail clinics – “in and out without waiting”
  - Like to use electronic media, mobile apps

- Since they are healthy, cost is a consideration
What is the Role of the Pharmacist?
Chronic Disease Burden

- Chronic disease is the leading cause of death and disability among Americans
- Half of American adults have ≥ 1 chronic condition and 1 in 4 adults have multiple chronic conditions
  - 2020 estimates: 164 million Americans with ≥ 1 chronic conditions and 81 million with multiple chronic conditions
- 99% of Medicare spending is related to chronic disease
- 81% of hospitalizations are accounted for by patients with chronic conditions
Chronic Disease Management

- US prescription drug use increased steadily over the past decade
- Aging population using more medications, more frequently
  - 9 of 10 older Americans take ≥ 1 prescription medication
  - 2/3 of Americans ≥ 65 years old take 5 to 9 medications
- Medications for chronic conditions account for 91% of prescriptions filled
Important Role of Medications

- About 80% of all medical treatments involve the use of medications
- Medication-related problems cost US healthcare system about $100 to $289 billion each year
- Suboptimal medication adherence is an important problem in chronic disease management
  - 20-30% of prescriptions are never filled
  - About 50% of medications are not taken as directed
  - Major contributor to excess healthcare utilization (hospitalizations), morbidity and mortality
Important Role of Pharmacist

- Quality
  - Numerous studies published across decades demonstrate the benefit of pharmacists in expanded roles to improve therapeutic outcomes
  - Integrating pharmacists into primary care can prevent avoidable spending by increasing patient adherence, optimizing prescription regimens, and preventing medication-related complications

- Return on Investment
  - Average for $1.00 spent, there is a return of $3.00 to $5.00
  - Value based on reduced hospital admissions, reduction in unnecessary or inappropriate medications, reduced emergency department visits
Preventive Services Offered by Pharmacists

- **Immunizations**
  - Authorized to provide immunizations in all 50 states
  - Nearly 1 in 4 adults received a vaccination in a community pharmacy in 2013

- **Screenings**
  - Cholesterol, HbA1c, bone density scans, screening for depression
  - Based on the results, pharmacist can either provide education or a referral

- **Educational and Behavioral Counseling**
  - Smoking Cessation
  - Lifestyle modifications
# Real Success Stories

<table>
<thead>
<tr>
<th>Organization</th>
<th>Background</th>
<th>Program Overview</th>
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<tbody>
<tr>
<td>University of Michigan Health System (UMHS)</td>
<td>990-bed academic medical center and health system based in Ann Arbor, Michigan, with an integrated pharmacist model deployed at 15 primary care clinics and four specialty clinics</td>
<td>• Partnership with department of pharmacy, college of pharmacy, and physician group practice</td>
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<td>• Group practice model expanded from 3 to 15 primary care sites since 2009</td>
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<td>• Pharmacy teams consist of pharmacist and pharmacy residents and students, with support from clinic panel managers</td>
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<td>• Supported by financial incentives from BlueCross BlueShield of Michigan and the creation of T codes to reimburse non-physician providers for face-to-face and phone visits</td>
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<td>University of Southern California-AltaMed Health System CMMI Pilot (USC-AltaMed)</td>
<td>Integrated pharmacy partnership between the USC School of Pharmacy and AltaMed Health System, a network of 43 community clinics located in Los Angeles and Orange counties, California</td>
<td>• Engaged in a CMMI Challenge grant through July 2015 to assess the feasibility and impact of an integrated pharmacist model across 10 primary care practice sites and 3 video telehealth locations</td>
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<td></td>
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<td>• Clinical pharmacy teams provide services directly to patients under a set of standardized, evidence-based protocols</td>
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<td>Hennepin County Medical Center (HCMC)</td>
<td>894-bed medical center based in Minneapolis, Minnesota, offering specialty and primary care MTM services at 16 ambulatory care sites</td>
<td>• Embeds 12 FTE pharmacists and two clinical pharmacy residents across 16 ambulatory clinic sites, the Augustana skilled nursing facility, and the Harbor Light homeless shelter clinic</td>
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<td>• Ambulatory MTM services have decreased average variable cost by approximately $2,000 per patient per year</td>
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<td>University of North Carolina - Mountain Area Health Education Center (MAHEC)</td>
<td>Family medicine residency training program with seven family health centers serving 16 counties in western North Carolina</td>
<td>• Embeds 5.25 FTE pharmacists and two pharmacy residents across the system’s seven ambulatory sites</td>
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<td>• Pharmacists work with UNC’s Department of Medicine to conduct Medicare Wellness visits, enabling pharmacists to bill at a higher reimbursement rate</td>
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<td>• Significant collaboration with community organizations, including a community pharmacy, medication assistance program, and the regional aging council</td>
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<td>University of Connecticut CMS Demonstration Pilot</td>
<td>CMS demonstration project to embed pharmacists across five primary care sites in Connecticut between July 2009 and May 2010</td>
<td>• Examines impact of the integrated pharmacy model for Medicaid polypharmacy patients</td>
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<td>• Contracted with nine independent pharmacists at five primary care practices in Connecticut</td>
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<td>• Program led by stakeholders from the University of Connecticut School of Pharmacy, the Connecticut Pharmacists Association, and the Connecticut Department of Social Services</td>
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<td>• Results included an estimated annual savings of $1,595 per patient</td>
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<tr>
<td>University of Michigan Health System (UMHS)</td>
<td>Operational Metrics</td>
<td>Pharmacy Program Impact</td>
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<td></td>
<td>Average number of patients per half-day clinic ranges from 4.5-8.3</td>
<td>Glycemic control and diabetes-related care improved</td>
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<td>80% direct patient care, 20% clinical administration</td>
<td>Increased goal attainment of many pay-for-performance process measures for the pharmacy-managed population</td>
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<td>Average duration of appointment is 30 minutes (reduced from initial 45 min)</td>
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<tr>
<td>University of Southern California-AltaMed CMMI Pilot (USC-AltaMed)</td>
<td>15,540 patient visits for 3,001 patients over 12 months</td>
<td>Over 2 years, inpatient visits decreased 13.1% for participating patients</td>
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<td>Daily visits of 14-22 patients per team</td>
<td>ED visits decreased 37.8%</td>
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<td>Team patient panel size of 350-725</td>
<td>Observation visits decreased 50%</td>
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<td>Average appointment duration is 30-45 minutes</td>
<td>Average patient satisfaction score of 9.6/10 for surveyed patients</td>
</tr>
<tr>
<td>Hennepin County Medical Center (HCMC)</td>
<td>Patient visit numbers tracked per FTE per clinic to establish daily targets for pharmacists</td>
<td>Pharmacists identified more than 3,500 adverse drug events; two drug problems identified on average per patient visit</td>
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<td>17% no-show rate, on par with the rest of the organization</td>
<td>30-day readmission rate reduced by 3.4% in hospital clinic</td>
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<td>90% of patients surveyed would recommend MTM services to a family member or friend</td>
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<td></td>
<td>Outpatient utilization increased by 40% and inpatient utilization decreased by 12%</td>
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<tr>
<td>UNC-Mountain Area Health Education Center (MAHEC)</td>
<td>4-5 patients per pharmacist per half day</td>
<td>Program tracks disease-specific clinical outcomes such as ACE inhibitor use for CHF patients and inhaled corticosteroids for persistent asthma</td>
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<tr>
<td></td>
<td>10-11 anticoagulation patients per pharmacist per half day</td>
<td>Appropriate use of calcium and vitamin D use increased from 30% to 99%</td>
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<td>80% of referrals from PCPs</td>
<td>DEXA screening for women increased from 25% to 80% and INRs in range improved</td>
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<td></td>
<td>85%-90% of referred patients receive services</td>
<td>Transitions in care program reduced 30 day readmission rate from 15.5% to 5.3%</td>
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<td></td>
<td>Average appointment time is 15 min. for anticoagulation teams, 30 min. for others</td>
<td>Reductions in A1c scores from 9.4 to 7.7 among pharmacy clinic patients since March 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pharmacists increase primary care physician capacity by conducting Medicare Wellness Visits</td>
</tr>
<tr>
<td>University of Connecticut CMS Demonstration Pilot</td>
<td>Nine pharmacists worked with 88 Medicaid patients</td>
<td>82% of prescribers made at least one change to patients’ therapies based on pharmacist recommendations</td>
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<tr>
<td></td>
<td>401 total patient encounters</td>
<td>Nearly 80% of drug therapy problems were resolved within four patient-pharmacist encounters</td>
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<td>Average of 4.6 encounters per patient</td>
<td>91% of patients achieved their treatment goals by the final visit (63% within first visit)</td>
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<td>Initial appointments 60-75 minutes, follow-up appointments 20-40 minutes</td>
<td>Pharmacists identified 917 drug therapy problems and 3,248 medication discrepancies</td>
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</tbody>
</table>
Real Life Success: Hennepin County Medical Center

- Hennepin County: 894 bed medical center based in Minneapolis, offering specialty and primary care MTM serves at 16 ambulatory care sites
- Embeds 12 FTE pharmacists and two pharmacy residents in the 16 ambulatory care sites, a skilled nursing facility, and a homeless shelter clinic
Real Life Success: Hennepin County Medical Center

- Ambulatory MTM services have decreased average variable cost by approximately $2000 per patient per year
- Pharmacist identified more than 3500 adverse drug events; two drug problems identified on average per patient visit
- 30 day readmission rate reduced by 3.4% for clinic patients that had been hospitalized
- Outpatient utilization increased by 40% and inpatient utilization decreased by 12%
- 90% of patients surveyed would recommend MTM services to a family member or friend
## Insights for Success

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Insight</th>
<th>Rationale</th>
<th>Action Steps</th>
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<tbody>
<tr>
<td>Staffing and Deployment</td>
<td>Establish a pharmacy support role that performs administrative, analytic, and patient outreach functions</td>
<td>• Increases pharmacist capacity for patient visits, medication therapy management, and other top-of-license tasks</td>
<td>• Calculate efficiencies gained through use of pharmacy support to build business case for additional staff</td>
</tr>
<tr>
<td>Patient Eligibility, Referral</td>
<td>Leverage comprehensive risk stratification criteria to identify eligible patients</td>
<td>• Enhances efficiency in managing patients with multiple comorbidities</td>
<td>• Clearly define responsibilities per role to prevent redundancies and facilitate collaboration</td>
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<tr>
<td>Processes</td>
<td></td>
<td>• Creates scalable model for expanding across multiple practices</td>
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</tr>
<tr>
<td>Patient and Provider Engagement</td>
<td>Institute mechanisms for interdisciplinary collaboration between pharmacists and primary care physicians</td>
<td>• Builds trust between providers through regular communication and empowers top-of-license care</td>
<td>• Determine data sources for mining patient information <strong>Identify relevant clinical, demographic, and psychosocial risk factors such as use of 10+ medications, frequent ED use, behavioral health diagnosis, etc.</strong></td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td>• Documents formal expectations for coordination between pharmacists and primary care providers</td>
<td><strong>Assess state regulations pertaining to pharmacist scope-of-practice and the role of collaborative practice agreements (CPAs); enlist pharmacist and physician champions to guide creation of a template CPA</strong></td>
</tr>
<tr>
<td>Care Coordination Processes</td>
<td>Use standardized intervention templates to efficiently track and coordinate pharmacist activities</td>
<td>• Identifies unmet patient needs and potential areas for improvement</td>
<td>• Dedicate time for huddles, team meetings, or other interdisciplinary forums <strong>Consult with pharmacists to build intervention checklist that compiles information on daily activity (e.g., medication problems identified, pharmacist recommendations, physician response)</strong></td>
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<td>• Ensures standardized data capture to assess program performance and build physician buy-in</td>
<td><strong>Incorporate tool into organization’s EMR to enhance ease of use</strong></td>
</tr>
<tr>
<td>Performance Metrics and Outcomes</td>
<td>Carefully select, monitor, and report clinical and quality outcomes to facilitate buy-in and best practice sharing</td>
<td>• Illustrates cost and quality improvement benefits of the integrated model</td>
<td><strong>Clarify relevant process and outcome measures, as well as desired program targets</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitates learning across sites and allows for effectiveness comparisons</td>
<td><strong>Utilize tracking systems to regularly report on program performance</strong></td>
</tr>
<tr>
<td>Financial Considerations</td>
<td>Measure program impact on total cost of care and downstream utilization to demonstrate business case</td>
<td>• Supports financial sustainability planning and program expansion beyond grant-funded pilot</td>
<td><strong>Identify program costs, including staffing, IT investments, and training</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Builds case to present to commercial payers</td>
<td><strong>Estimate cost avoidance attributable to integrated model and compare to overall program costs</strong></td>
</tr>
</tbody>
</table>
Kentucky State Innovation Model (SIM) Design
The Centers for Medicare & Medicaid Services (CMS) State Innovation Model (SIM) initiative is focused on testing the ability of state governments to use regulatory and policy levers to accelerate health transformation.

- CMS is providing financial and technical support to states for developing and testing state-led, multi-payer health care payment and service delivery models that will impact all residents of the participating states.

- The overall goals of the SIM initiative are to:
  - Establish public and private collaboration with multi-payer and multi-stakeholder engagement
  - Improve population health
  - Transform health care payment and delivery systems
  - Decrease total per capita health care spending

<table>
<thead>
<tr>
<th>Current System</th>
<th>Future System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncoordinated, fragmented delivery systems with highly variable quality</td>
<td>Affordable</td>
</tr>
<tr>
<td>Unsupportive of patients and physicians</td>
<td>Accessible to care and to information</td>
</tr>
<tr>
<td>Unsustainable costs rising at twice the inflation rate</td>
<td>Seamless and coordinated</td>
</tr>
<tr>
<td></td>
<td>High-quality – timely, equitable, and safe</td>
</tr>
<tr>
<td></td>
<td>Person- and family-centered</td>
</tr>
<tr>
<td></td>
<td>Supportive of clinicians in serving their patient’s needs</td>
</tr>
</tbody>
</table>

Source: CMS SIM Round Two Funding Opportunity Announcement Webinar

CMS’ Triple Aim Strategy

- Improve health system performance
- Increase quality of care
- Decrease costs
Components of a SIM Model Design

CMS requires a State Health System Innovation Plan – also referred to as the “Model Design” – as the final deliverable for a SIM Model Design grant.
# Is This Necessary?

**Kentucky Rank**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>Poor Mental Health Days</td>
</tr>
<tr>
<td>50</td>
<td>Cancer Deaths</td>
</tr>
<tr>
<td>50</td>
<td>Preventable Hospitalizations</td>
</tr>
<tr>
<td>50</td>
<td>Children in Poverty</td>
</tr>
<tr>
<td>49</td>
<td>Smoking</td>
</tr>
<tr>
<td>48</td>
<td>Drug Deaths</td>
</tr>
<tr>
<td>47</td>
<td>Poor Physical Health Days</td>
</tr>
<tr>
<td>46</td>
<td>Obesity in Adults</td>
</tr>
<tr>
<td>45</td>
<td>Underemployment Rate</td>
</tr>
<tr>
<td>44</td>
<td>Premature Death/100,000</td>
</tr>
<tr>
<td>43</td>
<td>Cardiovascular Deaths/100,000</td>
</tr>
<tr>
<td>42</td>
<td>Physical Inactivity</td>
</tr>
<tr>
<td>38</td>
<td>Low Birthweight</td>
</tr>
<tr>
<td>33</td>
<td>Diabetes in Adults</td>
</tr>
<tr>
<td>28</td>
<td>Lack of Health Insurance</td>
</tr>
<tr>
<td>22</td>
<td>High School Graduation</td>
</tr>
</tbody>
</table>

**America's Health Rankings 2014**

47th
Kentucky’s Vision for its SIM Model Design

Kentucky’s Model Design will incorporate multiple payers including: Medicaid & MCO Partners, Qualified Health Plans (QHPs), the Kentucky Employee Health Plan, other Self-Insured ERISA plans, fully-ensured Health Plans, and Medicare-related payers.

Stakeholder Engagement

- Payment Reform
- Delivery Reform
- Technology Reform

Value-based Purchasing
- Improved Health Outcomes
- Improved Care Coordination & Efficiency

Goal

KY Annual Health Care Expenditures: $28.4B
CMS Savings Goal: 2%
Estimated Savings: $568 M

Kentucky’s SIM Model Design application established the goal of reducing health care spending by 2% at the end of the four year implementation period.
Three Primary Goals for Healthcare Delivery Transformation

Increase Access
Significantly increase access in rural and urban underserved areas, with a focus on primary care and preventive services

- Maximize use of local resources to help individuals entering and navigating the health care system
- Assess workforce needs strategically by leveraging existing state-level, multi-stakeholder efforts
- Craft delivery options from a consumer service and convenience perspective

Increase Integrated & Coordinated Care
Increase population whose care is delivered through integrated and coordinated care models. Patient-centered care should be the rule, not the exception

- Leverage effective models that are currently in place in KY
- Identify regulatory measures and economic incentive structures
- Explore how workforce measures can support these goals
- Determine impact of consolidation in delivery system
- Emphasize prevention and wellness

Expand HIT Infrastructure
Expand HIT infrastructure to enable more efficient and accessible care delivery

- Optimize technologies that support effective communication
- Develop appropriate databases to support availability and use of actionable data
- Design and track metrics that reflect actual clinical outcomes
- Offer cost and outcome transparency
Four Primary Goals for Payment Reform

**Incentivize Greater Prevention**
The starting point for this goal is a KY fee-for-service (FFS) Medicaid initiative that was set to begin in January 2015 to *increase* reimbursement rates for certain *high-value prevention services* that have demonstrated to provide a strong ROI

- Aligns economic incentives of providers with CMS Core Population Health Metrics

**Incentivize Adoption of Integrated and Coordinated Care Models**
This goal is to employ Health Homes, PCMH, CPCI, ACOs, or other similar models, with the possibility of developing a more comprehensive multi-payer gain-share strategy and making integrated and coordinated care make economic sense

- Follow the lead of stakeholders that are leveraging integrated and coordinated care models in the state

**Improve Chronic Disease Prevention & Management**
For example, during the Design phase we plan to explore the use of *bundled* or "episodes" payment structures for certain defined health populations in Medicaid MCOs as a way to provide cost-effective chronic disease management

- Employ population health measures as part of a gain-share opportunity

**Align Payments with Quality**
Consideration of financial consequences for *preventable errors, readmissions, and unproductive clinical variations*, which produce unnecessary cost and health burdens

- Examine existing Medicare initiatives (e.g., financial withholdings for certain readmissions) with view toward adopting parallel payment structures in Medicaid and commercial arena
**Workgroup Structure**

<table>
<thead>
<tr>
<th>Workgroup Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Access</td>
<td>Develop strategies that increase access to needed services. Create work force development strategies to support SIM initiatives</td>
</tr>
<tr>
<td>Integrated and Coordinated Care</td>
<td>Develop Kentucky-specific model for improving care coordination for individuals with complex needs. Develop strategies to improve coordination across delivery systems</td>
</tr>
<tr>
<td>Health Information Technology (HIT) Infrastructure</td>
<td>Leverage Quality Health Information (QHI) framework to implement payment and quality reform strategies</td>
</tr>
<tr>
<td>Payment Reform</td>
<td>Identify payment reform strategies that support SIM goals</td>
</tr>
<tr>
<td>Quality Strategy/Metrics</td>
<td>Develop a program quality strategy that allows robust measurement of the effectiveness of SIM initiatives</td>
</tr>
</tbody>
</table>
Main Objectives

- Reduce the Rate of Tobacco Use
- Reduce the Incidence of Obesity
- Reduce the Incidence of Diabetes

CMS and kyhealthnow Focus
Other Focus Areas

- Cardiovascular Disease
- Cancer
- Oral Health
- Drug Overdose/ Poor Mental Health Days
How to Improve the Health of a State Population

1. Identifies gaps in access and disparities in the health status of state residents
2. Leverages and builds upon interventions and strategies including those in an existing public health State Health Improvement Plan (SHIP)
3. Creates an inventory of current efforts to advance the health of the entire state population, including efforts to integrate public health and health care delivery
4. Leverages existing health care transformation efforts to advance population health
5. Includes a data-driven implementation plan that identifies measurable goals, objectives, and interventions that will enable the state to improve the health of the entire state population
Where Does the Pharmacist Fit?

- Keep updated through KPhA
  - Bob McFalls is your contact
- Volunteer to serve on one of the workgroups
- Tell your story of how you have impacted population health
Next Steps

- **What else do you need to know?**
  - What is happening at the local hospital?
    - Are there any bundled payment programs happening?
    - What kind of population health initiatives occurring?
    - Can you partner with the hospital?
  - Can you partner with any long-term care facilities or inpatient rehabilitation facilities?
  - Are there physicians that need pharmacist services?
  - Have there been any collaborations with either the hospital or physician practices in the past?
  - Who are the key lead people that you would need to talk with?
Next Steps

- **Could you serve as a Care Manager?**
  - Will you be willing to go at risk?
  - Would you be able to discuss what services you could provide?
  - Have you prepared a portfolio of success stories that you can share?
  - Would there be patients that could discuss their experience?
  - Do you have materials that you can leave?
  - If asked, how quickly could you start?
Next Steps

How is your infrastructure?
- Would you be able to bill for the services?
- Do you have the staff to be effective?
- Are all of your staff on board?
- Do the staff know and understand their roles?
- How will you communicate with either the hospital, the long-term care facility or the physician practice?
- Are you able to easily receive and send information electronically?
- Do you have the physical location for the services that you want to provide?
- Will there be any negative impact on the rest of your business?
Key Points

- The pharmacist is a critical element in population health
  - Helps to decrease potential errors with medications
  - Helps to decrease hospital readmissions
  - Medication therapy management services, especially for those populations that are at high-risk for readmission, have been shown to be beneficial
  - Serve as a Care Manager

- Strong continuity of care between the hospital and the outpatient setting is necessary

- The pharmacist is uniquely qualified as the medication expert

- There are many ways for the pharmacist to be involved but the pharmacist must take a leadership role!
References


- Rozich JD, Resar RK. Medication safety: one organization’s approach to the challenge. *JCOM.* 2001; 8:27-34

- CDC- Partnering with Pharmacists in the Prevention and Control of Chronic Disease – 8/2012

- National Transitions of Care Coalition – [http://www.ntocc.org](http://www.ntocc.org)

- Project RED (Re-Engineered Discharge) – [www.bu.edu/famed/projectred](http://www.bu.edu/famed/projectred)

Questions?

Thank You!

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270-745-1599