Sharp Rees-Stealy Medical Group 's Journey towards improving the health of Hypertension, Cardiovascular and Diabetic Populations

Parag Agnihotri, MD
Medical Director, Continuum of Care
Objectives

1. Promoting Team based care
2. Addressing Practice variation
3. Remote patient monitoring to promote patient engagement

Q & A
Better Care : Better Health: Lower Cost
Why use a team to manage population health?
<table>
<thead>
<tr>
<th>Fee for Service</th>
<th>Value Based Care/Accountable Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Doctor with medical tools" /></td>
<td><img src="image" alt="Healthcare professionals" /></td>
</tr>
<tr>
<td>20 minute visit</td>
<td>Panel Management</td>
</tr>
<tr>
<td>22 patients a day</td>
<td>Health Risk assessment</td>
</tr>
<tr>
<td>Unknown health risks</td>
<td>Quality care</td>
</tr>
<tr>
<td>Episodic care</td>
<td>Preventive care</td>
</tr>
<tr>
<td></td>
<td>Total cost of care</td>
</tr>
<tr>
<td></td>
<td>Patient experience</td>
</tr>
</tbody>
</table>
Delivering safe care is virtually impossible without a team and a system.

Yarnell et al, Primary care: is there enough time for prevention, Am J Public Health 2003; 93:635-41
Bodenheimer, T, "Coordinating Care – A Perilous Journey through the Health care system", NEJM; 358:10, p1064, 2008

(Based on a panel size of 2000 patients)
What are we trying to achieve?
Population Health

How to go from Blood Pressure control from 75% to > 80%?
How to get bundled Diabetes measures score to be above 50%?

How to reduce burden of Cardiovascular disease?
How do you address this in a large multispecialty medical group with ...

250,000 assigned patients
1.4 million visits
500 Physicians
60 NP/PA
2000 Clinic staff
21 Clinic locations
Population Health
Important Components

Align stakeholders  Workflows  Team based  Patient engagement  Technology  Physician engagement  Effectiveness
Align Stakeholders

Align stakeholders

Workflows
Team based
Patient engagement
Technology
Physician engagement
Effectiveness
Quiz #1. What is the average prevalence of Diabetes in US?

A. 2% of population
B. 8% of population
C. 20% of population
D. 30% of population

Quiz #2. What is the total annual cost of healthcare for an individual with Diabetes?

A. $ 5000
B. $10,000
C. $14,000
D. $25,000
Diabetes Rates in San Diego

- About 8% of Central, South, East San Diegans have Diabetes
- Around 28% have Hypertension

19,000 Sharp Rees-Stealy members have been diagnosed with Diabetes
Total Annual Cost of Diabetes Care

$13,700 per member per year
....of which about $7,900 is attributed to diabetes.

- Hospital inpatient care: 43% of the total medical cost
- Prescription medications to treat complications of diabetes: 18%
- Anti-diabetic agents and diabetes supplies: 12%
- Physician office visits: 9%
- Nursing/residential facility stays: 8%

Source: Diabetes Care Vol. 36 March 6 2013 American Diabetes Association
190,000 Population

- IHA P4P
- Medicare Stars
- CMS GPRO
- Aetna ACO
- MU Stage 2
- Anthem ACO

Sharp Rees-Stealy reports on around 100 Quality Measures per year

Align stakeholders: Workflows, Team based, Patient engagement, Technology, Physician engagement, Effectiveness.
Entity Goal on the Scorecard

‘Population health measures’ are on the Sharp Rees-Stealy entity’s ‘**Balanced Score Card**’

Annual stretch goals are set
Design a Care Model

2020 Care Model

Clinical Redesign

- Care Management Programs
  - Population Health
  - Disease Management
  - Chronic Care Nurses
  - Complex Case Management
  - Mental Health Integration
- Pharmacy Refill Clinic
- Leveraging Technology
- Office Standardization

Physician & Staff

- Communication Training
- On-Stage Leadership
- Improve access to care
- Peer to Peer reviews

Patient Activation

& Shared Decision Making

- • Health Coaching
- • Health Education Classes
- • Community Resources
- • Healthier Living Classes
- • Patient Representatives on Committees

Align stakeholders

Workflows

Team based

Patient engagement

Technology

Physician engagement

Effectiveness
“Measurement is the first step that leads to control and eventually to improvement. If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it.”

— H. James Harrington
Have common EHR platform

How to find us in Touchwork?

Align stakeholders
Workflows
Team based
Patient engagement
Technology
Physician engagement
Effectiveness
Population Health Risk Stratification Interventions

Keep Patients Healthy, Happy and at Home

Tier 1
- Low Severity
- Programs for Chronic Diseases
- Implementation of evidence-based guidelines
- Data:
  - 60%

Tier 2
- Moderate Severity
- Programs for Chronic Diseases
- Data:
  - 20%

Tier 3
- Complex
- Programs for Chronic Diseases
- Data:
  - 15%

Tier 4
- High Severity
- Chronic Diseases with two hospitalizations
- Needs co-ordination of care
- Reducing avoidable Hospitalization
- Data:
  - 5%
The Registry with necessary clinical components

<table>
<thead>
<tr>
<th>Last PCP</th>
<th>Last Endo</th>
<th>Last HA1c Date</th>
<th>HA1c Date</th>
<th>Last LDL Date</th>
<th>LDL Date</th>
<th>BP2</th>
<th>BP1</th>
<th>BP Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1/2014</td>
<td>5.8</td>
<td>7/7/2014</td>
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<td>8/7/2014</td>
<td>126/84</td>
<td>2/7/2014</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- All necessary labs
- Color coded for out of range
- Current medication
- Last Appointment
- Next Appointment
Hot spotting of HTN population

NORTH and NORTH INLAND 29%  n=10,000

CENTRAL 15%  n=5000

EAST 31%  (n=11,000)

SOUTH 22%  n=7200
Identify High Risk patient

Framingham Scale

Or

ASCVD Risk score

Or

Low bundled Diabetes score
Create Workflows with Automation

**SR-HA1c>=9**

Patients above 9% automatically go to Diabetes DM

Align stakeholders  Workflows  Team based  Patient engagement  Technology  Physician engagement  Effectiveness
Create Workflows with Standardization
Teamwork
Who is on your team?

Align stakeholders  Workflows  Team based  Patient engagement  Technology  Physician engagement  Effectiveness
200,000 patients
FTE working at top of the license

COMPLEX
Care at Home

Multiple Chronic Conditions
need co-ordination of care
Reducing avoidable Hospitalization

Programs for Chronic Diseases
Reaching goals as per evidence based guidelines for chronic disease
Diabetes, Asthma, CHF, COPD, Obesity, HTN

Walking well; need periodic screening tests
Preventive Care Reminder Program

Align stakeholders
Workflows
Team based
Patient engagement
Technology
Physician engagement
Effectiveness

TRIAGE NURSE

NP, Social Worker, Case Manager RN

Case Manager RN, Chronic Care RN

Disease Manager level 2 & 3, Pharmacist

Care Coordinator
Diabetic Educator
Health Coach
Pharmacy Tech
Place of Service

Clinic
- Team Based Care
- Disease m/m programs
- Healthier Living
- Chronic Care Nursing with PCP
- Complex Case m/m
- Pharmacy Programs

Emergency Room / Urgent Care

Transitions (Palliative care)

Continuum Of Care

SNF ALF/B +C

Hospital
- Hospital CM
- Hospitalist
- COC post discharge calls

Home

Extended Care Team
- Case Manager
- Home Health

Home Health

UC Collaboration Education

Connuum Of Care

Place of Service
### Roles of Continuum of Care Teams

#### Hospital and SNF Case Management
- Hospital and SNF discharge planning
- Coordination of care to reduce readmissions

#### Complex Case Management
- Catastrophic or high risk cases e.g., Organ Transplant, MVA, Multiple Comorbidities, UM, Discharge Plan

#### Chronic Care Nursing
- Team work with PCP, Embedded model
- Post hospital and coordinate care of high risk multiple chronic condition patients (short term)

#### Disease Management
- Long term engagement and management
- CHF, COPD, CAD, Asthma, Diabetes

#### Pharmacy Program
- Medication therapy management
- (High cost, Refill, Adherence, High risk, Reconciliation)

#### Healthier Living
- Group classes and peer support group
- Example Chronic Diseases, Obesity

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**Align stakeholders**

**Workflows**

**Team based**

**Patient engagement**

**Technology**

**Physician engagement**

**Effectiveness**
## Optimize Care Team Roles

### Disease Management Activity Report

**Case Load by Status**

**Dates Covered: Between 2/20/2014 and 3/6/2014**

<table>
<thead>
<tr>
<th>FTE</th>
<th>Goal Merited Case Load</th>
<th>Current Referred (n)</th>
<th>Referred (+/-)</th>
<th>Current Enrolled (n)</th>
<th>Enrolled (+/-)</th>
<th>Total Engaged (n)</th>
<th>Engaged (+/-)</th>
<th>ACE Question Completion Rate (%)</th>
<th>ARB Question Completion Rate (%)</th>
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<tbody>
<tr>
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<td>100=2 110=3 130=4</td>
<td>2</td>
<td>-17</td>
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<td>-</td>
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<td>+5</td>
<td>92%</td>
<td>92%</td>
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<td>14</td>
<td>-2</td>
<td>7</td>
<td>-</td>
<td>157</td>
<td>-15</td>
<td>67%</td>
<td>67%</td>
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<tr>
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<td>28</td>
<td>+11</td>
<td>0</td>
<td>-</td>
<td>138</td>
<td>+1</td>
<td>53%</td>
<td>53%</td>
</tr>
<tr>
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<td>100=2 110=3 130=4</td>
<td>41</td>
<td>+25</td>
<td>0</td>
<td>-</td>
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<td>+4</td>
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<td>75%</td>
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<td>0</td>
<td>-</td>
<td>115</td>
<td>-3</td>
<td>100%</td>
<td>100%</td>
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<td>84</td>
<td>+3</td>
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<td>-11</td>
<td>131</td>
<td>-6</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

- **Level III**
- **Level II**
- **Level I**

### Key Components

- Align stakeholders
- Workflows
- Team based
- Patient engagement
- Technology
- Physician engagement
- Effectiveness
Teamwork

Case Managers
Social Worker
Disease Managers
Care Specialists
Clinic Staff
Pharmacist/Pharmacy Tech
Health Coach

OK. Now you have a team. But how effective are they?
Quiz #3: One effective way to engage patients in self management of their chronic disease is....

A. Make sure to provide all ‘care instructions’ in one session
B. Present yourself as part of Care Team; one who works with your PCP/office staff
C. Provide generic education material
D. My way or the highway

25%  25%  25%  25%
Engage the Patient

*Partner with me*

Form personal connection
Face to face interaction
Step by step wellness plan
Coordination of care across the system
Patient specific education material
Shared care plans
Medication adherence reporting
Use HIT to engage all patients not just present

Align stakeholders  Workflows  Team based  **Patient engagement**  Technology  Physician engagement  Effectiveness
Quiz #4. For more efficient management of patient population...

A. Patient’s ‘risk score’ looking at predictors of cost is sufficient by itself.

B. In general, ‘all’ patients adhere to treatment guidelines after their clinic visits.

C. Patient activation scores provide relevant information beyond the risk score.

D. Activated patients know how to navigate through the system and use more resources and hence incur more cost.

Source: Judith H. Hibbard, Jessica Greene and Valerie Overton Health Aff February 2013 vol. 32 no. 2 216-222
Measure the Engagement Rate

### Disease Management

<table>
<thead>
<tr>
<th>Program</th>
<th>LII &amp; LIII Refs</th>
<th>LII &amp; LIII Non-Data Refs</th>
<th>Ref Status</th>
<th>Enr Status</th>
<th>Eng Status</th>
<th>Closed Eng</th>
<th>Closed Non-Eng</th>
<th>Decl</th>
<th>Eng Rate</th>
<th>Prev Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD</td>
<td>392</td>
<td>24</td>
<td>51</td>
<td>637</td>
<td>53</td>
<td>28</td>
<td>115</td>
<td>31</td>
<td>19.47%</td>
<td>19.90%</td>
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<tr>
<td>Asthma</td>
<td>270</td>
<td>12</td>
<td>0</td>
<td>704</td>
<td>86</td>
<td>11</td>
<td>47</td>
<td>7</td>
<td>34.40%</td>
<td>30.75%</td>
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<tr>
<td>Diabetes</td>
<td>1200</td>
<td>215</td>
<td>114</td>
<td>3797</td>
<td>471</td>
<td>49</td>
<td>256</td>
<td>68</td>
<td>36.75%</td>
<td>34.05%</td>
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<tr>
<td>COPD</td>
<td>n/a</td>
<td>159</td>
<td>0</td>
<td>69</td>
<td>55</td>
<td>16</td>
<td>14</td>
<td>5</td>
<td>44.65%</td>
<td>44.72%</td>
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<tr>
<td>CHF</td>
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<td>470</td>
<td>2</td>
<td>104</td>
<td>180</td>
<td>117</td>
<td>48</td>
<td>19</td>
<td>63.49%</td>
<td>63.04%</td>
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<tr>
<td>Overall DM</td>
<td>1862</td>
<td>880</td>
<td>167</td>
<td>5311</td>
<td>845</td>
<td>221</td>
<td>480</td>
<td>130</td>
<td>38.88%</td>
<td>37.21%</td>
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</table>

### Senior Enhanced Care Management

<table>
<thead>
<tr>
<th>Total Referred</th>
<th>Ref Status</th>
<th>Enr Status</th>
<th>Eng Status</th>
<th>Closed Eng</th>
<th>Closed Non-Eng</th>
<th>Decl</th>
<th>Eng Rate</th>
<th>Prev Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>853</td>
<td>19</td>
<td>0</td>
<td>539</td>
<td>85</td>
<td>30</td>
<td>180</td>
<td>73.15%</td>
<td>73.73%</td>
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</table>

Align stakeholders  Workflows  Team based  Patient engagement  Technology  Physician engagement  Effectiveness
Practice Co-located team members have higher patient engagement rate.

<table>
<thead>
<tr>
<th>Chronic Care Nursing – (CCN-PHN Cases Excluded)</th>
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</thead>
<tbody>
<tr>
<td>Total Referred</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior Enhanced Care Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Referred</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>77</td>
</tr>
</tbody>
</table>

*Volume includes DM/Senior Enhanced Dual Cases*
Patient Engagement
Medication Adherence
Medication Therapy Management team
(Refill clinic)

Refill Request
Pharmacy e-script
Pharmacy fax
Patient walks in
Patient calls
MySharp

Refill Clinic

Sharp-Rees - Stealy

Providers
Family Medicine
Internal Medicine

Pharmacy Technician
Medication Therapy Management
Sample Protocol

- Verify if BP measured in past 12 months
- Indication of medication
- Strength and dosage of medication
- Date of last physician appt (within 6 months)
- Laboratory monitoring

Antihypertensive
Graduation into Self-Management:

*Healthier Living Classes*

Healthier Living classes

2014 YTD:
15 workshops
118 participants

63% completion rate
Population Health
High patient engagement rate

62%
Overall patient engagement
HEALTH LITERACY
Quiz # 5 Healthcare professionals that are entering the field of health coaching may include ;

A. Nutritionists
B. Respiratory therapists
C. Pharmacists
D. Oriental medicine practitioners
E. All of the above.
Health Coach for Hypertensive

What should be the standards?

How does one measure engagement?
Quiz #6: In a recent survey what percentage of Physicians would recommend a mobile Health App to a patient?

A. 30% of Physicians
B. 50% of Physicians
C. 80% of Physicians
D. None would recommend

Source: Pricewaterhouse Coopers– HRI Physician Survey, 2010
Devices that Drive Healthier Behavior

…the booming health market will grow to **$26 billion by 2017**, reaching a worldwide market of 1.7 billion users looking to **use their smartphones and tablets to take care of their health.** Currently, there are about 97,000 mobile health applications…

---research 2guidance 2013

**88% of physicians** want patients to track or monitor their health at home.

---PricewaterhouseCoopers– HRI Physician Survey, 2010
Sometimes, people like talking to computers

myAgileLife: Q: What effect does unsweetened fruit juice have on blood glucose? Reply 17A=Lowers it, 17B=Raises it or 17C=Has no effect

17b

myAgileLife: A: You got it right! Even unsweetened juices have lots of sugars and calories that raise blood sugar. Try drinking water instead.
Chronic Care
Telephone or Tele video code +copay
code void if seen within last 7 days for related E/M service or
next 24 hours.

Established patient
Patient initiated visits
Secure connection

• Diabetes management
• Depression f/u
• Endocrine disorder f/u
• Medication side effects
• Home confined
Telehealth BP pilot program summary
Multiple Chronic Conditions
Needs co-ordination of care
Reduce avoidable hospitalization

Programs for Chronic Diseases.
Reaching goals as per evidence based guidelines for chronic disease
Diabetes, Asthma, CHF, COPD, Obesity, HTN

Walking well; need periodic screening tests
Preventive Care Reminder Program

200,000 patients. FTE Working at top of the license

COMPLEX House calls

Triage Nurse

NP, Social Worker, Case Manager RN

Case Manager RN, Chronic care RN

Cardiocom for CHF

Disease Manager level 2 & 3, Pharmacist

Propeller Health Diabetes Text messaging

Care Coordinator Diabetic Educator Health Coach Pharmacist Tech
How to buy ‘buy in’?
Quiz #7: What is the most effective way to engage physicians in a quality improvement project?

A. Physicians will figure it out on their own.

B. Simple outline on what you want the physicians to do.

C. Hand out copies of Diabetes Association guidelines.

D. Campaign to patients ‘Ask your doctor about perfect diabetes care’.

![Bar chart showing equal distribution of 25% votes for each option]
Physician Engagement Strategy

1. What do you want your Physicians to do?
2. Do they know how to do the work?
3. Do they have the resources to do the work?
4. Are physicians motivated to do the work?

Ralph Jacobson is founder and principal of The Leader’s Toolbox and author of "Leading for a Change: How to Master the Five Challenges Faced by Every Leader." He is also a faculty member of the Physician’s Leadership College. He can be reached at www.theleaderstoolbox.com.
Group Specific Clinical Guidelines

Simplified Hypertension Treatment Approach

### Treat to a goal:
- Aged ≤ 79 yrs.: SBP <140 and DBP < 90 mm Hg
- Aged ≥ 80 yrs.: SBP <150 and DBP < 90 mm Hg

#### 1st step: Lifestyle Interventions
- Dietary salt restriction (<1.5g sodium/day)
- Weight loss if overweight or obese
- **High in:** fruits, vegetables, whole grains, and nuts
- **Low in:** processed foods and sugars, decrease portion sizes
- Exercise 30-60 minutes 5-7 days/week, limit alcohol intake

#### 2nd step: General population including those with Diabetes
- Initiate pharmacological treatment
  - ACE-Inhibitor* / Thiazide Diuretic **
  - Lisinopril / HCTZ (Advance as needed)
    - 20 / 25 mg X ½ daily
    - 20 / 25 mg X 1 daily
    - 20 / 25 mg X 2 daily
- *Pregnancy Potential: Avoid ACE-Inhibitors
- **If No CKD or no DM and low Cardiovascular risk may consider thiazide alone

#### For ACEI intolerance due to cough, use ARB
- Add Losartan 25 mg daily
- 50 mg daily
- 100 mg daily

*Pregnancy Potential: Avoid ARB

If not in control

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Align stakeholders Workflows Team based Patient engagement Technology Physician engagement Effectiveness
Diabetes care: Simple Three Rules of Success

1. Appointment every 4 weeks until achieve goal A1c
2. Laboratory every 4 weeks until at goal A1c
3. Titration of medication every 4 weeks until at goal A1c
The Registry
better be accurate

<table>
<thead>
<tr>
<th>Last PCP</th>
<th>Last Endo</th>
<th>Last HA1c Date</th>
<th>HA1c Date</th>
<th>Last LDL Date</th>
<th>LDL Date</th>
<th>BP2</th>
<th>BP1</th>
<th>BP Date</th>
</tr>
</thead>
</table>

• All necessary labs
• Color coded for out of range
• Current medication
• Last Appointment
• Next Appointment

List 1 – goes to Disease Manager
Quiz #8  It is estimated that a five mm Hg reduction of Systolic Blood Pressure in the population would result in:

A. No benefit as lowering by 5 mm Hg is not enough
B. 14% overall reduction in mortality due to stroke
C. 50% overall reduction in mortality due to stroke
D. Thinking of this question raises my blood pressure by 5 mm Hg

Quiz #9 Annual expenditures for those treated for hypertension averaged

A. $100 per adult
B. $220 per adult
C. $733 per adult
D. $1000 per adult

Source. AHRQ Expenditures for Hypertension among Adults Age 18 and Older, 2010: Estimates for the U.S. Civilian Non institutionalized Population
Quiz #10 What is the average annual End Stage Renal Disease cost per patient requiring dialysis?

A. $10,000
B. $40,000
C. $70,000
D. Half a million

Source: Kidney disease statistics for the United states National Kidney and Urologic Diseases Information Clearinghouse
Hypertension-80% in control

Demonstrate Blood pressure control

✓ All ‘Value Based Payment’ programs
✓ ACO , Meaningful Use programs

✓ CMMI Health Innovation grant awardee-$5.8 million
(San Diego collaborative- SRS, UCSD, Scripps, Arch, Scripps Coastal, Neighborhood Health, North Coastal, San Ysidiro and Multicultural clinics)
About 28% of Central, South, East San Diegans have Hypertension

33,000 Sharp Rees-Stealy members have been diagnosed with Hypertension
HTN Population of 33,000

Control of Blood Pressure

75% (n=25,058) have BP below <140/90

24% (n=7,928) have BP > 140/90

Of these:

3.5% have BP above 160/100
Hypertension Campaign Goal:
80% of Patients at Goal
According to JNC 7

Process Planks for Achieving Goal

Primary Process Planks
- Direct Care Staff Trained in Accurate BP Measurement
- Hypertension Guideline Used & Adherence Monitored
- BP Addressed for Every Hypertension Patient, Every PC Visit
- All Patients Not at Goal & with New Rx Seen within 30 Days

Value-Add Process Planks
- Registry to Identify & Track Hypertension Patients
- All Team Members Trained in Importance of BP Goals
- All Specialist Intervene with Patients Not in Control
- Prevention, Engagement & Self-Management Program in Place
Peer Review
Registry helps with demonstrating control rate at each site

Diabetes Advanced Perfect Care by Site, Percent of Patients with BP <140/90 - September 2014

- SCRIPPS RANCH: 88.92%
- DEL MAR: 88.61%
- RANCHO BERNARDO: 87.10%
- MIRA MESA: 87.06%
- SORRENTO MESA: 86.41%
- SAN CARLOS: 86.09%
- CARMEL VALLEY: 84.27%
- POINT LOMA: 84.21%
- CHULA VISTA: 83.64%
- GENESEE: 83.10%
- OTAY RANCH: 82.46%
- LA MESA: 81.91%
- DOWNTOWN: 81.49%
- 78.97%
Address Practice Variation - Peer Review
Bundled Diabetes score includes BP control

Align stakeholders  Workflows  Team based  Patient engagement  Technology  Physician engagement  Effectiveness
Quiz# 11 Among patients labeled as ‘Resistant Hypertension’ (uncontrolled by office BP and on 3 drugs including diuretic)

How many eventually became normotensive with the help of ambulatory BP monitoring?

A. 5%
B. 10%
C. 20%
D. 30%

D. 30%
High Risk-HTN management program

1st choice: ACE-Inhibitor/Thiazide Diuretic combo

BP not in control
High Risk Framingham

Demonstrate Control
Communicate to PCP

Wireless BP cuff @ Home

Pharmacist review
>3 anti HTN meds

Monitoring by Population Health RN, Health Coach


Highly effective HTN t/t algorithm. Handler, J. Journal of Clinical Hypertension Dec 2013 vol 15:12 874-877
TEAM BASED CARE
COMMUNITY PARTNERSHIP

The campaign to make San Diego a heart attack and stroke-free zone.

Heart Attack and Stroke are preventable. See your doctor today to find out your risk for heart disease and stroke and to get on the right treatments to reduce your risk for premature death.

Take charge of your health today and visit: www.betheresandiego.org

The campaign to make San Diego a heart attack and stroke-free zone.
Successful in managing Hypertension

Controlling BP for patients with HYPERTENSION

- RCI goal: 75%
- AMGA Goal: 80%
- CA Commercial 90th percentile: 74%
- Commercial insurance 2013: 74%

20% 30% 40% 50% 60% 70% 80% 90%
Continuous Improvement Process
‘All or none’ Diabetes bundled care
Diabetic patients with A1c < 8%, 2 A1c, LDL <100 or active statin, BP<140/90

54% have perfect Diabetes care

SR-APC Rate

Align stakeholders  Workflows  Team based  Patient engagement  Technology  Physician engagement  Effectiveness
### Preliminary Improve Clinical Outcomes

Heart attack, stroke prevention *and other associated complications* focused on Diabetes patients

<table>
<thead>
<tr>
<th>Diabetes ‘Advance Perfect Care’ beneficiaries (n=8543)</th>
<th>Controlled For 6 months (n= 1952) New complication / 1000/Yr.</th>
<th>Uncontrolled For 6 months (n=6591) New complication / 1000/Yr.</th>
<th>Reduction in complication</th>
<th>Annual Cost avoidance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Myocardial Infarction</strong></td>
<td>4.10</td>
<td>4.55</td>
<td>9.9% reduction</td>
<td>$660,000 (22 x $30,000 per episode)</td>
</tr>
<tr>
<td><strong>Renal failure requiring dialysis</strong></td>
<td>0</td>
<td>0.46</td>
<td>100% reduction</td>
<td>$210,000 (3 x $70,000 annual per ESRD)</td>
</tr>
<tr>
<td><strong>Retinopathy</strong></td>
<td>19.98</td>
<td>22.45</td>
<td>11% reduction</td>
<td>$218,000 (109 x $2000 low annual t/t cost per DR)</td>
</tr>
<tr>
<td><strong>Stroke</strong></td>
<td>5.64</td>
<td>6.37</td>
<td>11% reduction</td>
<td>$1,240,000 (31 x $40,000 for first 90 days)</td>
</tr>
</tbody>
</table>

- **SRS 2013 APC program analysis:** Rolling 12 months, last claim date June 2013

### Align stakeholders Workflows Team based Patient engagement Technology Physician engagement Effectiveness
Community and National Collaboration

Success

**CAD Hospitalizations per 1,000 Senior HMO Members per Year**
Data Source: Claims


Opportunity: with HTN control

**Stroke Hospitalizations per 1,000 Senior HMO Members per Year**
Data Source: Claims


HTN: NNT 86 new patients to be under control to reduce one MI

HTN: NNT 63 new patients to be under control to reduce one CVA

Align stakeholders  Workflows  Team based  Patient engagement  Technology  Physician engagement  Effectiveness
COLLABORATION
University of Best Practice, San Diego
It is all about Teamwork!
Lessons learned

- Registry
  - common EHR & Peer Review

- Physician Engagement
  - Keep it simple and centralized

- Team based healthcare
  - Co-located and who is on your team?

- Patient Engagement
  - Measure effectiveness of Health Coaching

- Medication Bundle
  - Cost effective first line agents ACE/Diuretic

- Telehealth
  - ‘High risk’ Hypertension

- Change is hard
  - RCI-UBP network support.
Welcome your questions....

Parag Agnihotri, MD
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parag.agnihotri@sharp.com
Your Questions?