

Local Innovations to Control: A Pathway to Success

Missouri Hypertension Control Summit

Tuesday, December 10, 2019

The Donald Danforth Plant Science Center

Carolyn Koenig, MD

Chair of Quality, Safety and Value

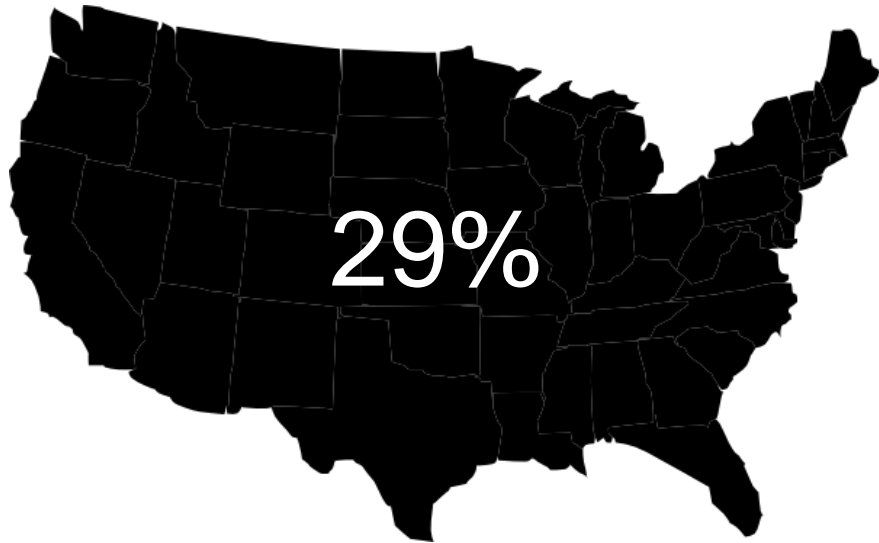
Medical Director of Care Management

Mercy Clinic East Community

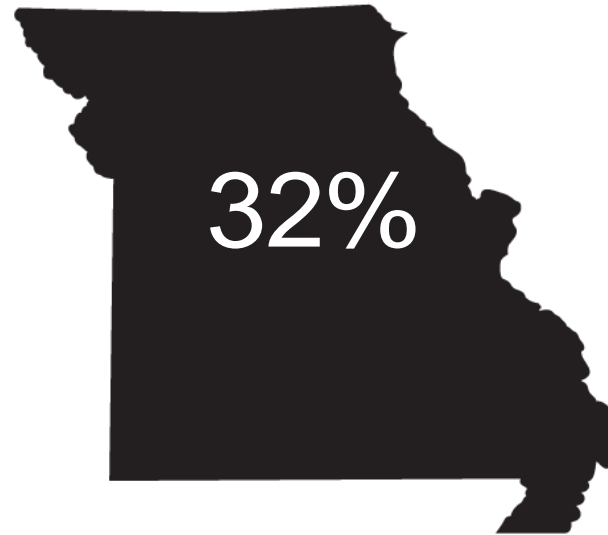


Your life is our life's work.

Hypertension Prevalence



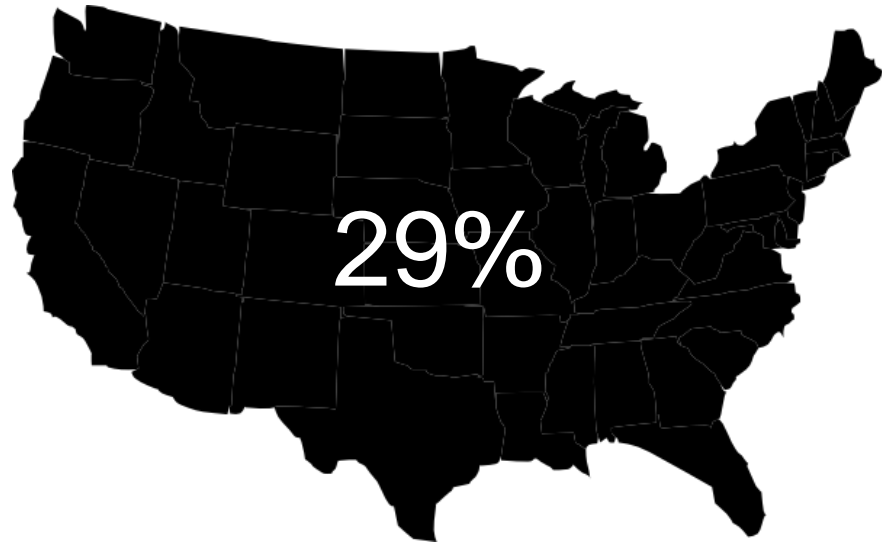
**National
HTN Prevalence Rate
(2015-2016)**



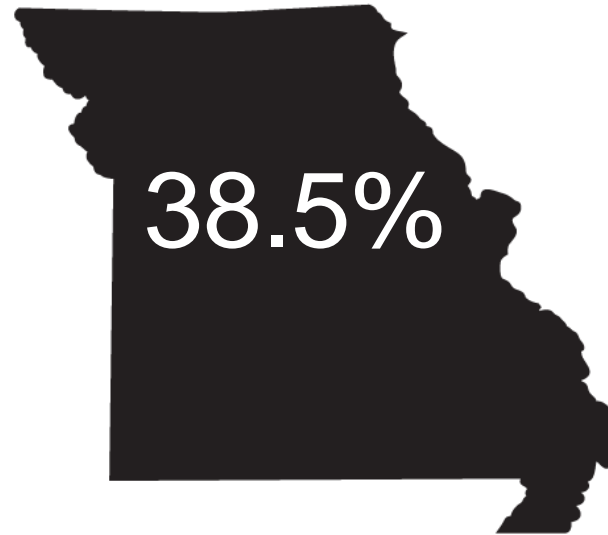
**Missouri
HTN Prevalence Rate
(2017-2018)**

[https://www.cdc.gov/nchs/products/databriefs/db289.htm#targetText=During%202015%E2%80%932016%2C%20the%20prevalence,or%20Hispanic%20\(27.8%25\)%20adults.](https://www.cdc.gov/nchs/products/databriefs/db289.htm#targetText=During%202015%E2%80%932016%2C%20the%20prevalence,or%20Hispanic%20(27.8%25)%20adults.)

Hypertension Prevalence



**National
HTN Prevalence Rate
(2015-2016)**



**Missouri
African American HTN
Prevalence Rate
(2017-2018)**

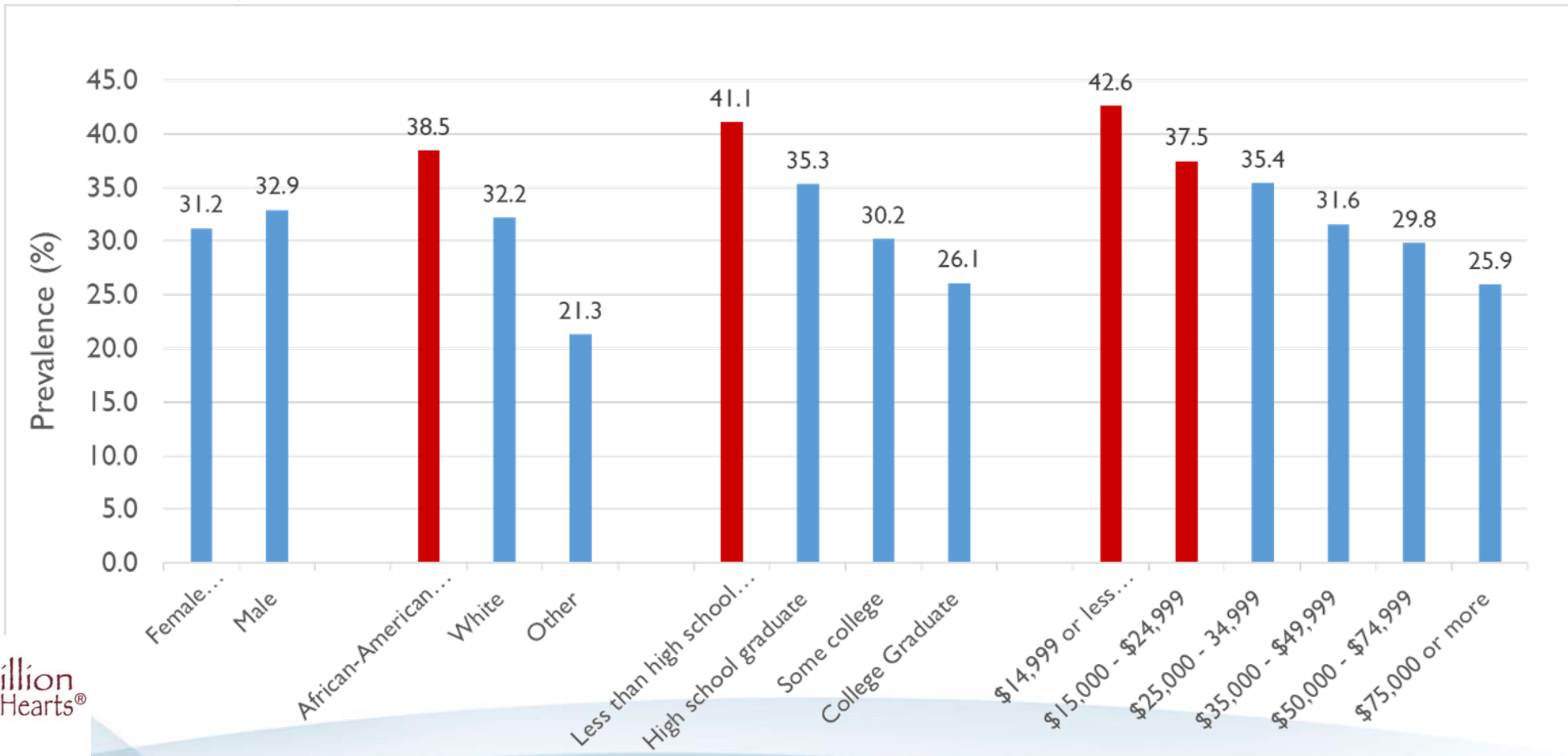
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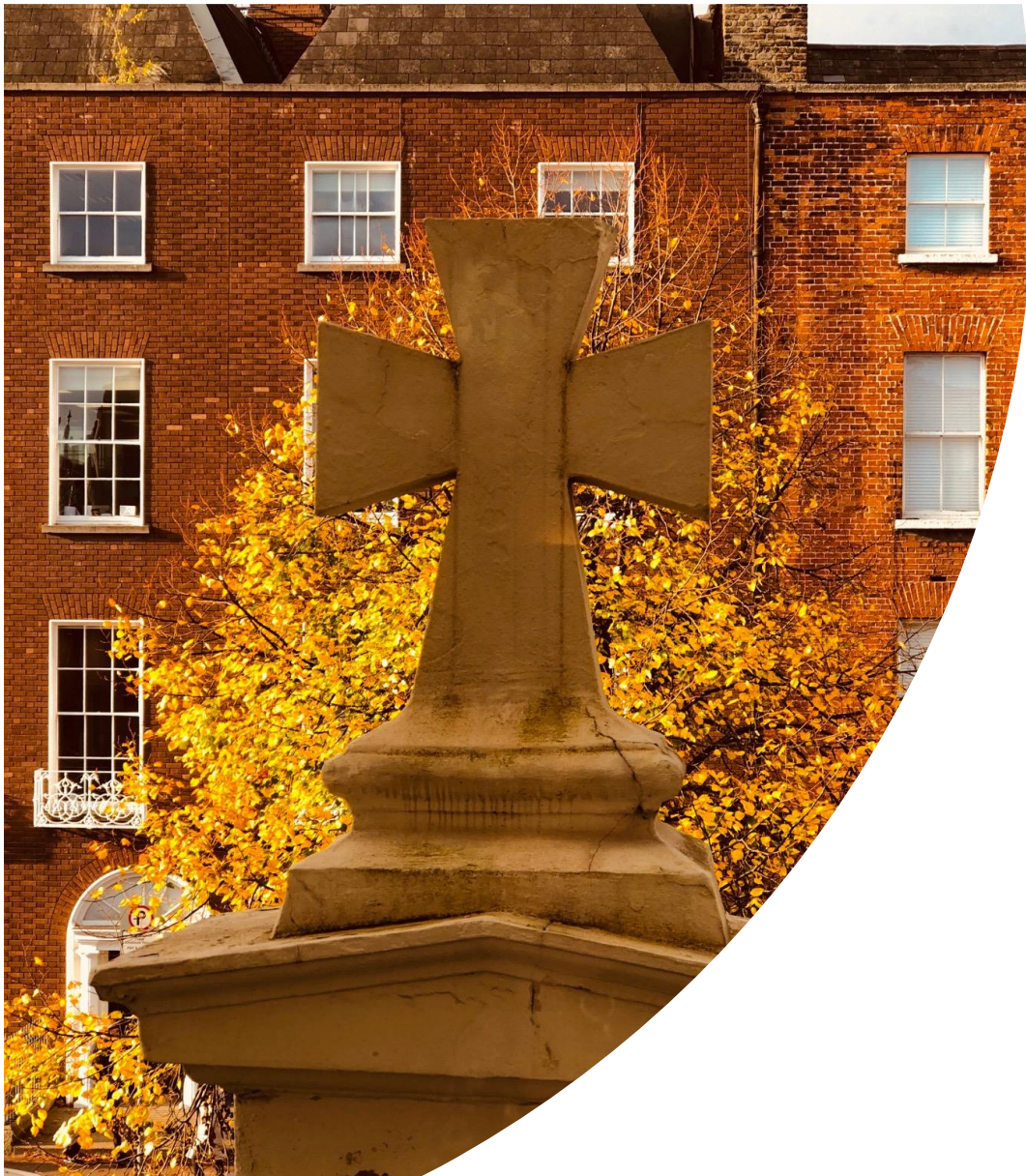
Missouri's Urgency for Changing the Health System

- **Cardiovascular Disease Burden in Missouri:**
 - **Heart disease** continues to be the leading cause of death (14,818 in 2017; 3,640 MIS) heart attack is 24.56% of all heart disease deaths.
 - Essential hypertension is 11th leading cause of death in the African-American community.
 - **Stroke** is the fifth leading cause of death (3,159 in 2017).
- **Behavioral Risk Factor Surveillance System (BRFSS) Data:**
 - Prevalence of smoking, physical inactivity, inadequate fruit and vegetable consumption, obesity, hypertension, high cholesterol and diabetes - ***generally higher than US.***



Prevalence of High Blood Pressure by Demographic Characteristics Missouri, 2017

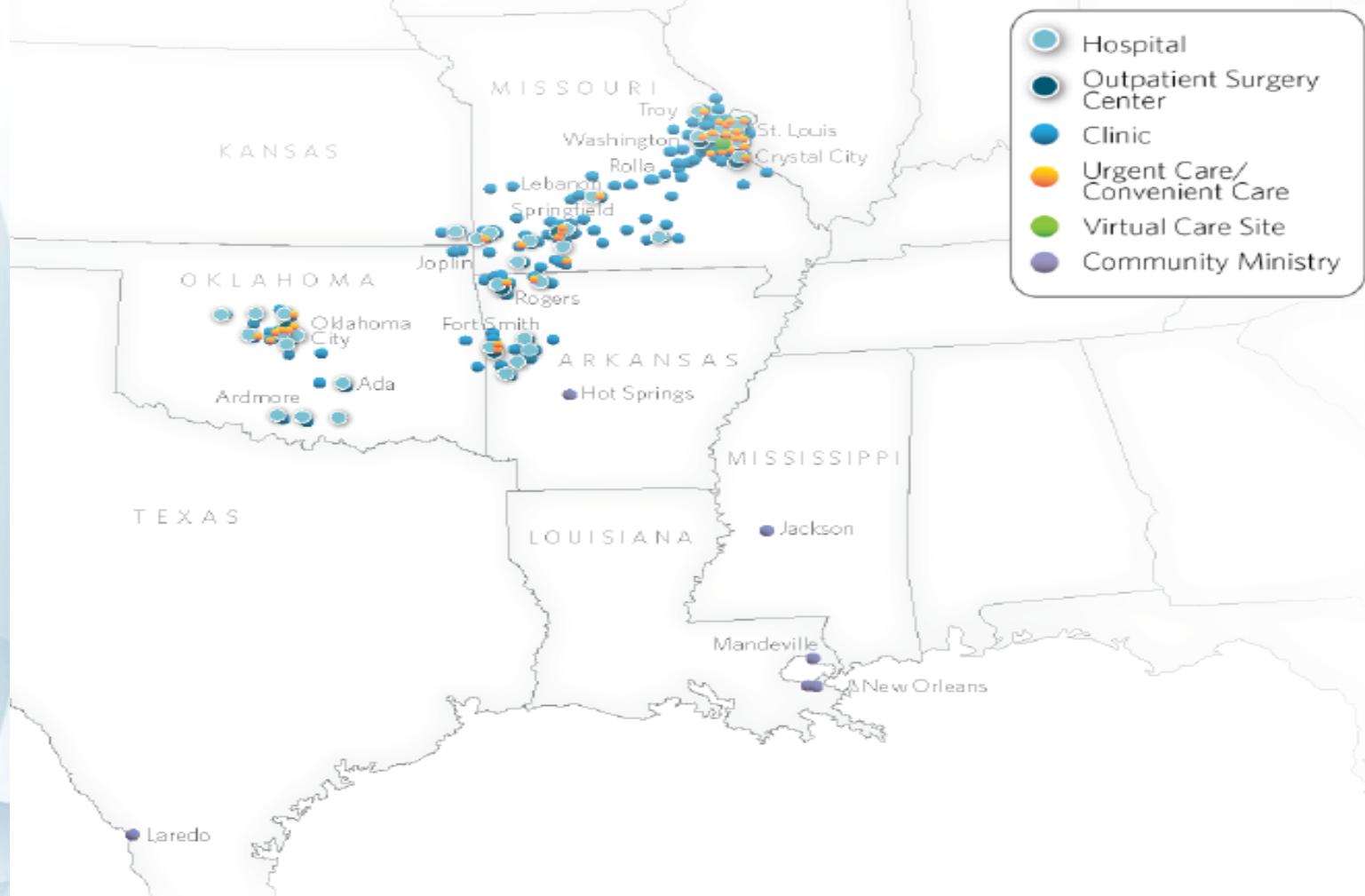




Blood Pressure is the single most modifiable risk factor for preventing heart attacks and strokes.

About Mercy

Headquartered in St. Louis, Mercy is one of the largest Catholic health systems in the US, serving millions each year over a multi-state footprint through touchpoints including outreach ministries and virtual care.



Hospitals & Ambulatory Sites

- 29 acute care hospitals
- 4 heart hospitals
- 3 rehab hospitals
- 2 children's hospitals
- 2 orthopedic hospitals
- 1 virtual care command center
- 903 physician practices
- 345 clinic locations
- 12 outpatient surgery centers
- 35 urgent care sites
- 29 convenient care centers

Medical Staff & Co-workers

- 45,000+ co-workers including:
- 2,400+ integrated physicians
- 1,500+ integrated advanced practitioners

Utilization FY18

- 3,331 staffed beds
- 25,081 births
- 178,104 surgeries
- 195,151 inpatient discharges
- 10,290,454 outpatient visits
- 738,977 ED visits

Financial Information FY18

- \$6.3 billion total operating revenue
- \$7.5 billion total assets
- \$279 million community benefit/charity care

Mercy East Community



Hospitals & Ambulatory Sites

- 5 acute care hospitals
- 1 heart hospital
- 1 rehab hospital
- 1 children's hospital
- 1 virtual care command center
- 340 physician practices
- 112 clinic locations
- 3 outpatient surgery centers
- 17 urgent care sites
- 4 convenient care centers



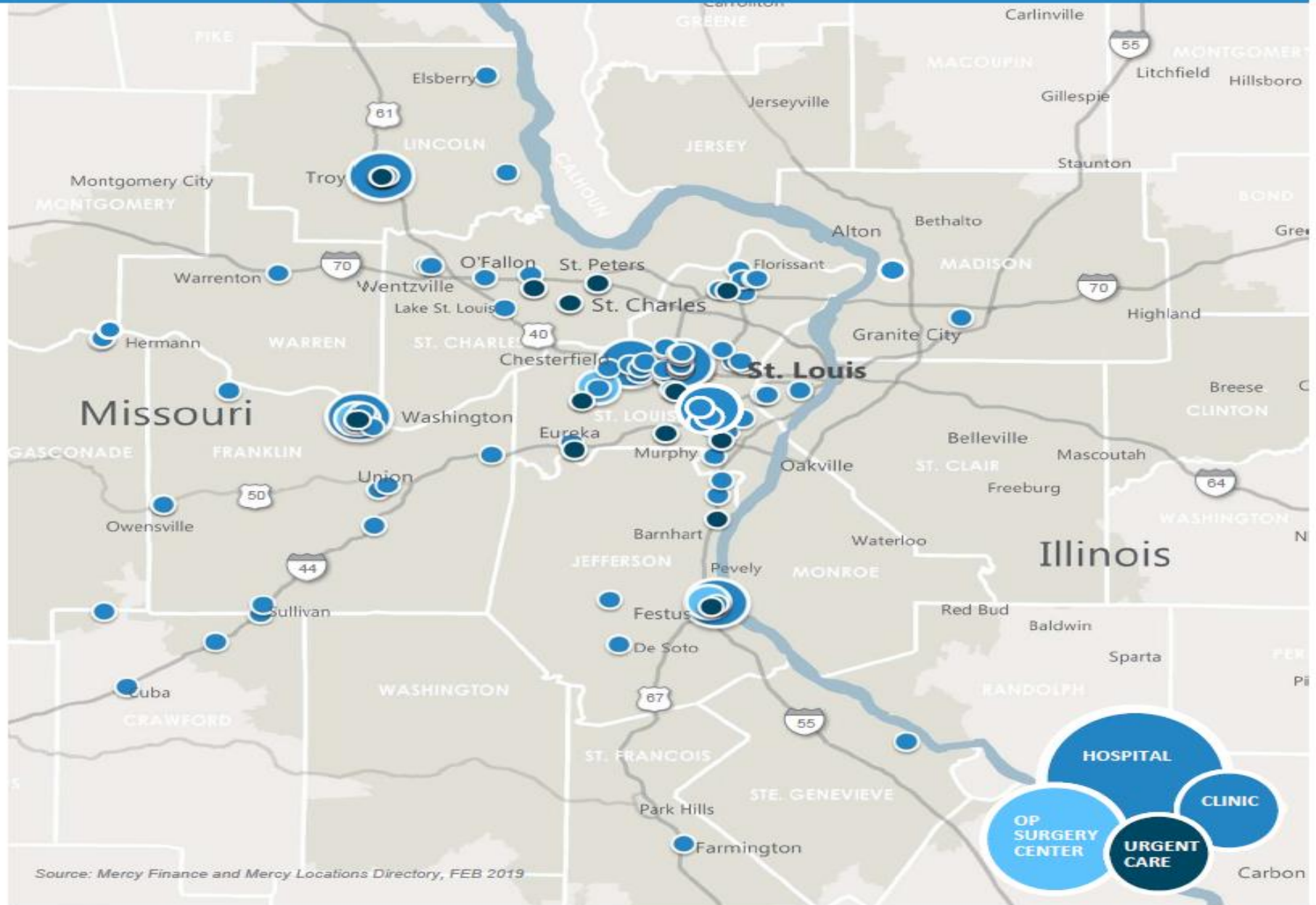
Medical Staff & Co-workers

- 1,000+ integrated physicians
- 500+ advanced practice clinicians
- 21,500+ co-workers
including ministry office



Utilization FY18

- 1,469 staffed beds
- 10,929 births
- 62,704 surgeries
- 85,323 inpatient discharges
- 4,116,757 outpatient/office visits
- 243,710 ED visits



Source: Mercy Finance and Mercy Locations Directory, FEB 2019

Congratulations

2015

Hypertension
CONTROL

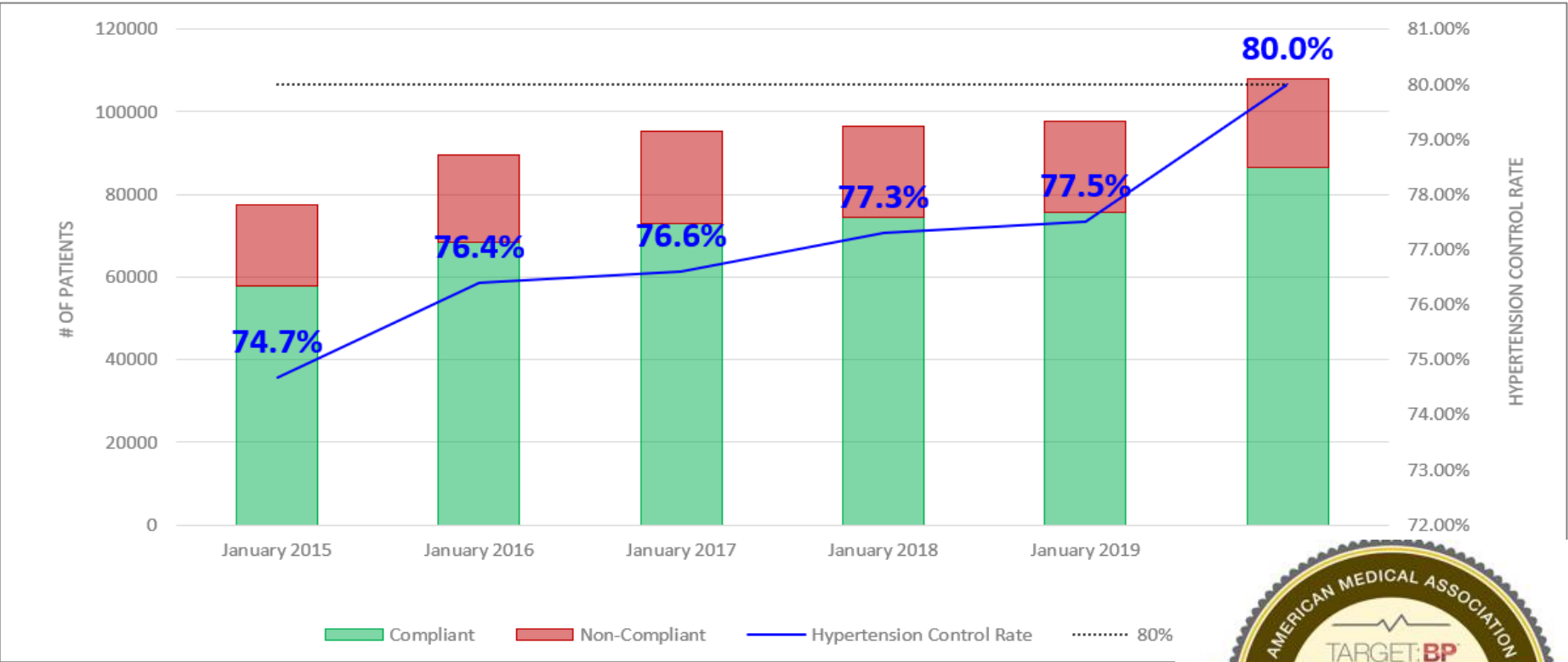
CHAMPIONS

Full list of Champions at millionhearts.hhs.gov



TARGET:BP™

Hypertension Control at Mercy East 2015-2019





...
Vital Signs are Vital



Vital Signs...

are Vital

Goal < 140/90

Everyone knows the plan.

“Over-communicate the plan and the current status against the plan.”
-Alan Mullaly



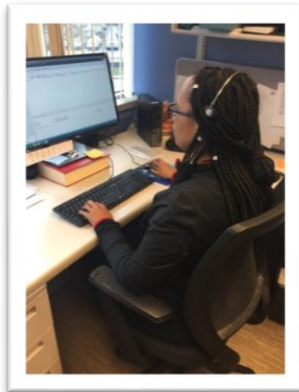


Measure Up Pressure Down®

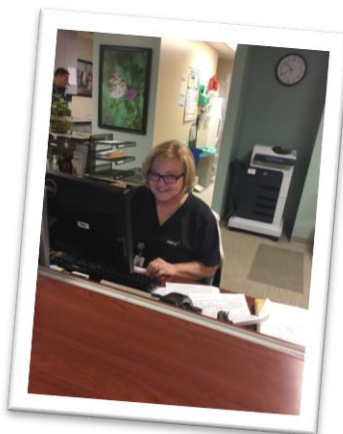
It Takes a Team



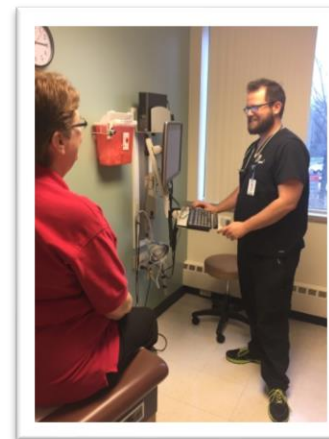
Practice Manager



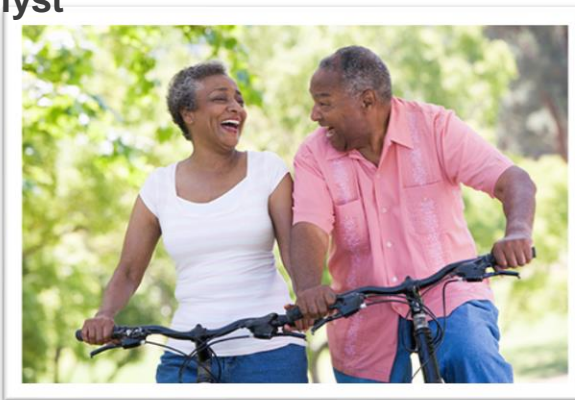
Data Analyst



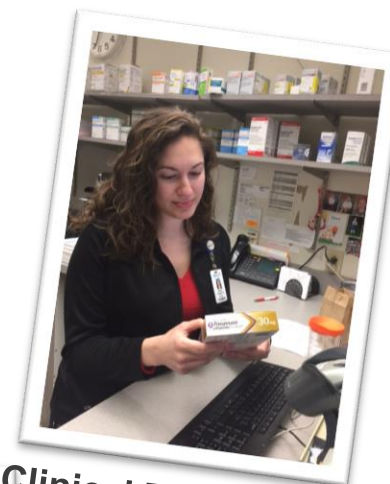
Medical Receptionist



Medical Assistant



Patient



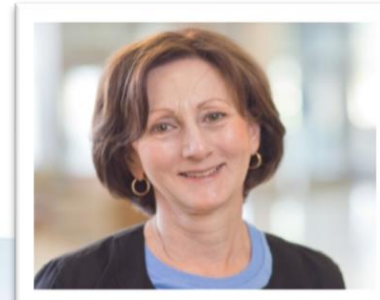
Clinical Pharmacist



Primary Care Doctor



Specialist



Nurse Care Manager

Physician Hypertension Transparency Reports

MERCY CLINIC EAST COMMUNITIES												
ADULT PRIMARY CARE - ST. LOUIS												
FY20 QUALITY MEASURE REPORT: HYPERTENSION												
	Hypertension (Goal 80%)											
	<i>(% of patients 18-80 years who have a diagnosis of HTN who have been seen in the last 12 months with a BP reading of < 140 systolic & < 90 diastolic last date of visit)</i>											
	<i>Numerator: Total # of HTN patients compliant with measure</i>											
	<i>Denominator: Total # of HTN patients seen in the last 24 months</i>											
<i>Source: Population Health Data</i>	FY16	FY17	FY18	FY19	July, 2019	August, 2019	September, 2019	October, 2019	November, 2019	December, 2019	January, 2020	February, 2020
R, A MD	82.4%	88.2%	86.4%	87.4%	86.7%	90.2%	89.2%	89.0%	89.2%			
B, M MD	85.2%	79.6%	82.8%	82.9%	84.4%	87.2%	87.8%	89.3%	89.0%			
R, R MD	81.5%	79.8%	86.1%	88.7%	88.1%	89.9%	89.7%	87.9%	88.7%			
H, C MD	85.8%	87.5%	86.2%	85.0%	85.4%	87.3%	87.2%	86.8%	88.1%			
B, B MD	87.4%	88.2%	87.7%	86.9%	87.6%	89.1%	88.1%	88.1%	88.0%			
S, A DO	64.5%	79.3%	79.6%	85.3%	83.9%	83.2%	84.7%	84.7%	87.0%			
D, S MD	N/A	N/A	81.7%	83.7%	84.4%	86.8%	85.4%	85.7%	86.9%			
W, M MD	74.3%	77.0%	82.7%	82.8%	84.1%	86.3%	86.0%	86.9%	86.7%			
H, M MD	90.1%	82.3%	83.5%	82.6%	84.0%	81.9%	84.1%	84.4%	86.5%			
K, A MD	84.5%	85.8%	86.4%	86.4%	86.8%	87.2%	86.3%	86.1%	86.5%			
Group Percentage	78.8%	79.5%	79.1%	79.3%	79.5%	80.5%	80.5%	80.3%	80.1%			

Engaging medical assistants

BP Accuracy Video



7 SIMPLE TIPS TO GET AN ACCURATE BLOOD PRESSURE READING

The common positioning errors can result in inaccurate blood pressure measurement. Figures shown are estimates of how improper positioning may potentially impact blood pressure readings.

Sources:

1. Pickering, et al. Recommendations for Blood Pressure Measurement in Humans and Experimental Animals: Part 1: Blood Pressure Measurement in Humans. *Circulation*. 2005;111: 520-526.
2. Alexander J. The importance of accurate blood pressure measurement. *The Permanente Journal*/Summer 2009/Volume 13 No. 3 51

This 7 simple tips to get an accurate blood pressure reading was adopted with permission of the American Medical Association and The Johns Hopkins University. The original copyrighted content can be found at <https://www.ama-assn.org/am-a-johns-hopkins-blood-pressure-reading>

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TARGET: **BP** |



Quality metric: BP screening

REVIEW OF SYSTEMS

Review of Systems

Respiratory: Negative for shortness of breath.

Cardiovascular: Negative for chest pain.

Objective

PHYSICAL EXAM

BP 140/68 mmHg | Pulse 62 | Temp(Src) 98.3 °F (36.8 °C) (Oral) | Resp 12 | Ht 5' 3" (1.6 m) | Wt 172 lb (78.019 kg) | BMI 30.48 kg/m² | SpO₂ 97% | Breastfeeding? No

Physical Exam

Constitutional: She is oriented to person, place, and time. She appears well-developed and well-nourished. No distress.

HENT:

Head: Normocephalic and atraumatic.

Neck: Neck supple. No thyromegaly present.

Cardiovascular: Normal rate, regular rhythm and normal heart sounds.

Pulmonary/Chest: Effort normal and breath sounds normal.

Musculoskeletal: She exhibits no edema.

Neurological: She is alert and oriented to person, place, and time.

Psychiatric: She has a normal mood and affect. Her behavior is normal.

BLOOD PRESSURE SCREENING

BP: 140/68 mmHg (09/25/15 1305)

{BP fu plan of care specialist:10327830:"BP is normal or controlled."}

BP is normal or controlled.

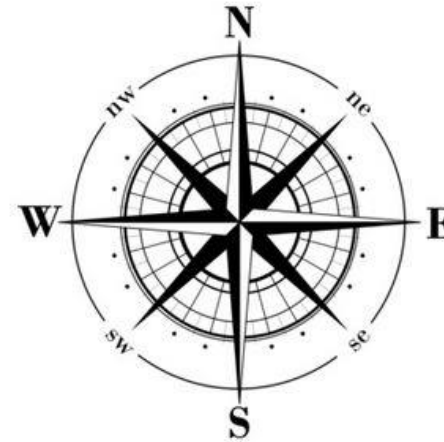
BP is > or = 120/80 either value, with no h/o HTN. Pt has been inst. to f/u with primary care provider for BP recheck.

BP is > or = 140/90 either value, with a known h/o HTN. Pt has been inst. to f/u with primary care provider for BP recheck.

BP Navigator Referral-

place when BP > 140/90

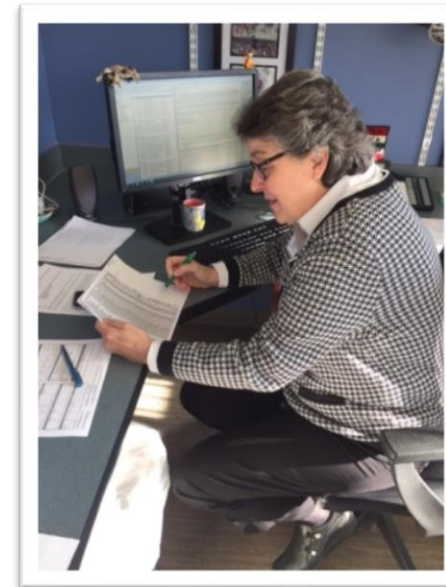
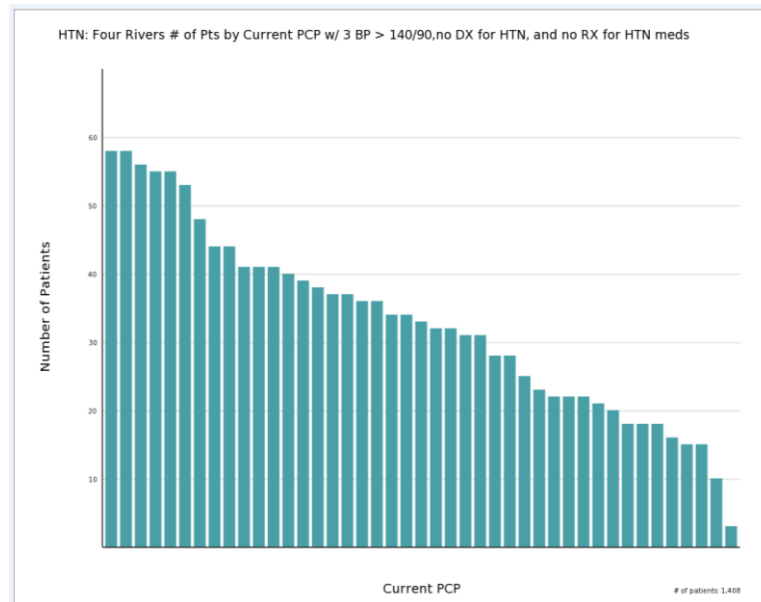
- BP Navigator is a specially trained MA who calls patient based on referral from specialist when BP > 140/90
- **Use for *any* patient with or without diagnosed HTN**
- This ensures Mercy true “referral” to PCP and has Mercy staff help them make appt or find PCP



Engaging practice managers and other work

Gap reports for managers

- Uncontrolled Hypertension gap reports
- Undiagnosed Hypertension gap reports
- Self monitoring blood pressure program



Engaging all clinical staff

Best Practice Alert to recheck Blood Pressure in EHR

The screenshot displays an EHR interface with a patient's information on the left and a clinical alert on the right.

Left Panel (Patient Information):

- Unit/Rm/Bed: STLMC INT MED TOWER A STE 189
- Code: Prior (Adv Directive Received)
- Search bar with a magnifying glass icon.
- 12/5 OFFICE VISIT ESTABLISHED for Upper Respiratory Symptoms
- Wt: 73.5 kg (162 lb)
- BMI: 26.16 kg/m² !
- BP: 140/80 ! >1 day

Right Panel (Encounter Guide):

- Encounter Guide (with a dropdown arrow and edit icon)
- Quality (Measure: 1) (with an up arrow icon)
- Alert: ! Take Blood Pressure
- Action: Recheck BP (with a refresh icon, close icon, and dropdown arrow)

Engaging patients

- Self Monitoring Blood Pressure work
- Blood pressure report card for after visit summary



YOUR BLOOD PRESSURE REPORT CARD

A is for "ACTIVITY"

Risk Factor: Lack of physical activity - Increased activity is the *natural* way to improve your blood pressure control and overall health.

Your Goals: Exercise 30-60 minutes most days of the week
 Increase to 60-90 minutes most days of the week to lose weight.

B is for "BLOOD PRESSURE"

Risk Factor: High blood pressure - Your last 3 readings are
BP Readings from Last 3 Encounters:

09/04/19	132/80
08/01/19	138/82
07/23/19	(!) 142/78

Your Goals: Less than 130/80
 Less than 140/90
 Less than 150/90 for some people 60 and over.

You should get your blood pressure checked at every office visit.

Monitor blood pressure at home or store (Time; hourly/daily/weekly:11039) and bring readings to appointments. It is best to be seated for 3-5 minutes prior to checking your blood pressure.

C is for "CUFF SIZE"

Generally speaking it is better to use a cuff that goes around your upper arm (not your wrist or finger)

A blood pressure CUFF that is too small will make your blood pressure look too high. Your arm circumference is:

- 22-26 cm = pediatric
- 27-34 cm = adult
- 35-44 cm = large adult
- 45-52 cm = adult thigh

D is for "DASH FOOD PLAN" - DIETARY APPROACHES TO STOP HYPERTENSION

What difference does a few percentage points make in hypertension?

Our performance in the East Community

- ❖ *improved from in 2013 65 to 79.8% today*
- ❖ *a 22.76% improvement from 2013 to 2019.*

What does 22.76% Mean?

A total of 24,682 patients moved from uncontrolled to controlled hypertension in those six years!



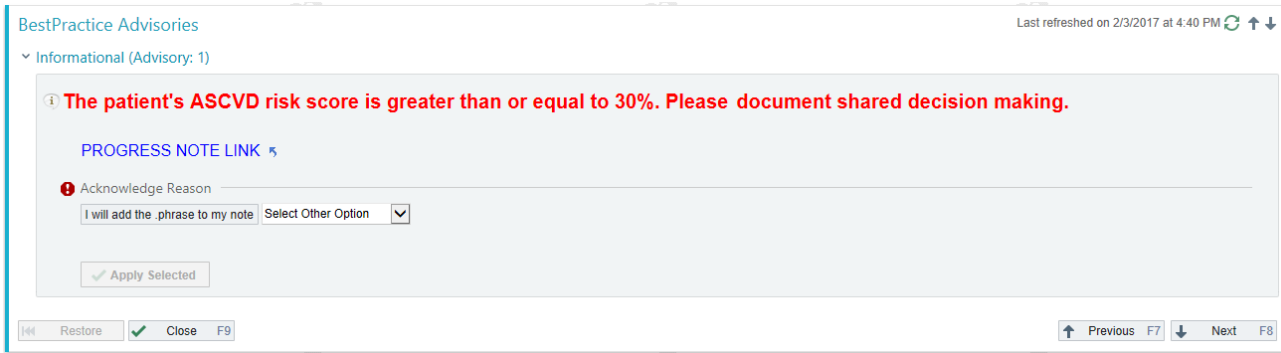
24,682 patients now in control- Number of patients needed to treat for 5 years to prevent one heart attack or one stroke: **36**

Next steps- taking a closer look at those who are high risk

**3,138 patients in our ACO population
identified as high risk ASCVD >30%**

Their risk of heart attack or stroke in next 10 years is
predicted at >30%

Patients at High Risk for Cardiovascular Disease



BestPractice Advisories Last refreshed on 2/3/2017 at 4:40 PM ↻ ↑ ↓

▼ Informational (Advisory: 1)

① The patient's ASCVD risk score is greater than or equal to 30%. Please document shared decision making.

[PROGRESS NOTE LINK](#)

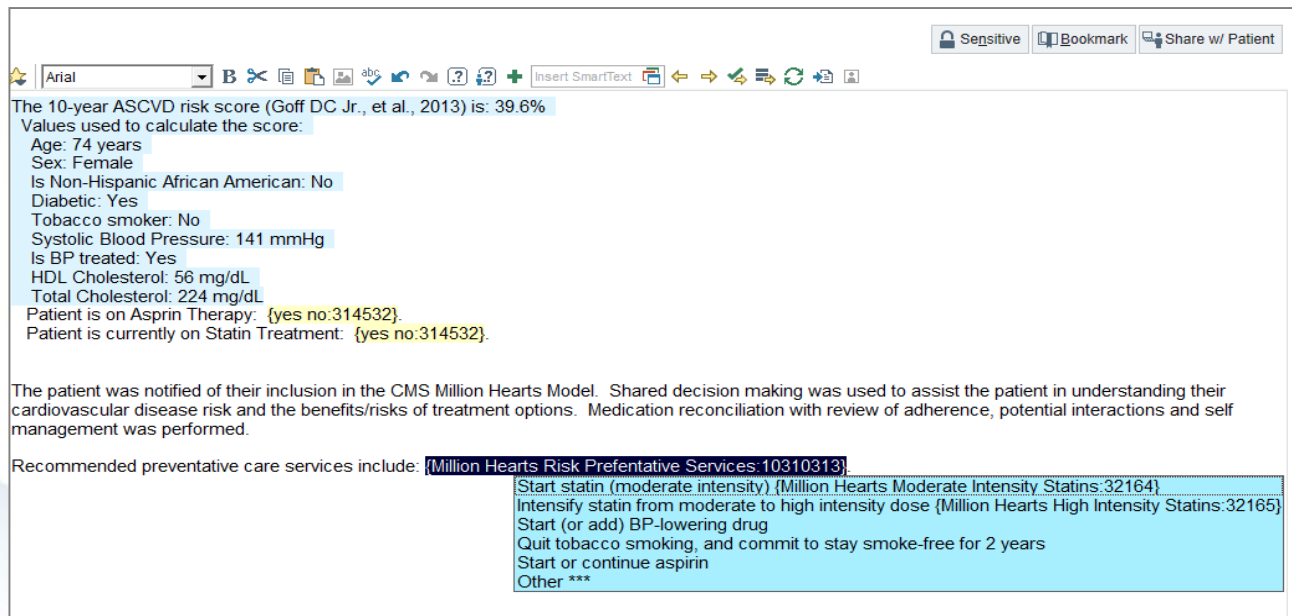
⊛ Acknowledge Reason

I will add the phrase to my note | Select Other Option ▼

✓ Apply Selected

⏪ Restore | ✓ Close F9 ⬆ Previous F7 | ⬇ Next F8

Best Practice Alerts Prompt Documentation of Smartphrases



Sensitive | Bookmark | Share w/ Patient

Arial Insert SmartText

The 10-year ASCVD risk score (Goff DC Jr., et al., 2013) is: 39.6%

Values used to calculate the score:

- Age: 74 years
- Sex: Female
- Is Non-Hispanic African American: No
- Diabetic: Yes
- Tobacco smoker: No
- Systolic Blood Pressure: 141 mmHg
- Is BP treated: Yes
- HDL Cholesterol: 56 mg/dL
- Total Cholesterol: 224 mg/dL
- Patient is on Aspirin Therapy: {yes no:314532}.
- Patient is currently on Statin Treatment: {yes no:314532}.

The patient was notified of their inclusion in the CMS Million Hearts Model. Shared decision making was used to assist the patient in understanding their cardiovascular disease risk and the benefits/risks of treatment options. Medication reconciliation with review of adherence, potential interactions and self management was performed.

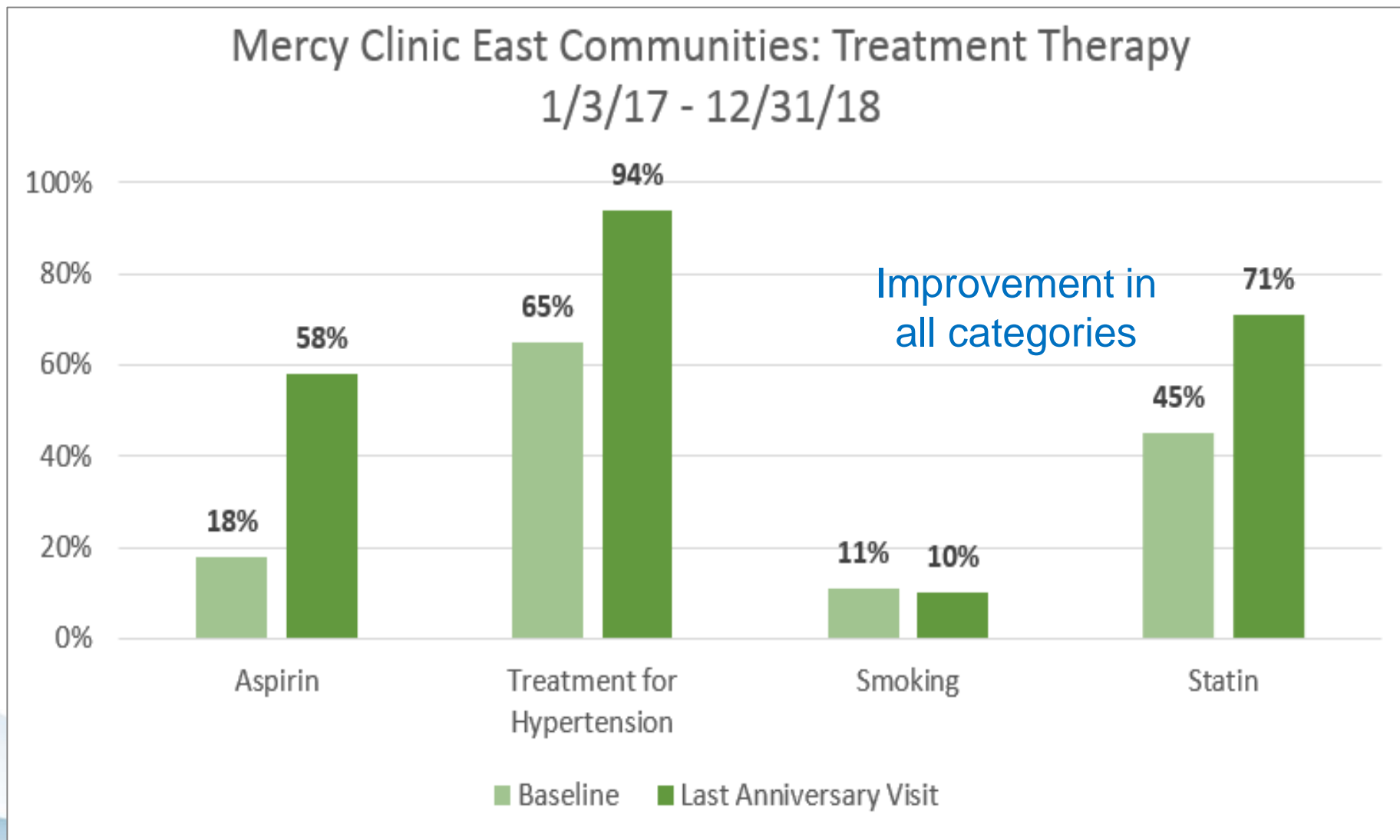
Recommended preventative care services include: {Million Hearts Risk Preventative Services:10310313}.

- {Start statin (moderate intensity) (Million Hearts Moderate Intensity Statins:32164)}
- {Intensify statin from moderate to high intensity dose (Million Hearts High Intensity Statins:32165)}
- Start (or add) BP-lowering drug
- Quit tobacco smoking, and commit to stay smoke-free for 2 years
- Start or continue aspirin
- Other ***

Provider & Nurse Smartphrases Enhance Shared Decision Making and Improve Consistency and Intensity of Treatment

Results: 2,594 high risk patients (ASCVD \geq 30%) seen for follow-up

Interventions for High Risk Patients



Overall ↓ 8.5%
ASCVD Risk

Overall ↓8.5% ASCVD Risk

Measuring impact using the Number-Needed-To-Treat, Mercy's CVD intervention has potentially prevented:



46 heart attacks



53 strokes and



21 deaths in the East Community

3,138 patients in our ACO population identified as high risk ASCVD >30%

Driving to better goal <130/80

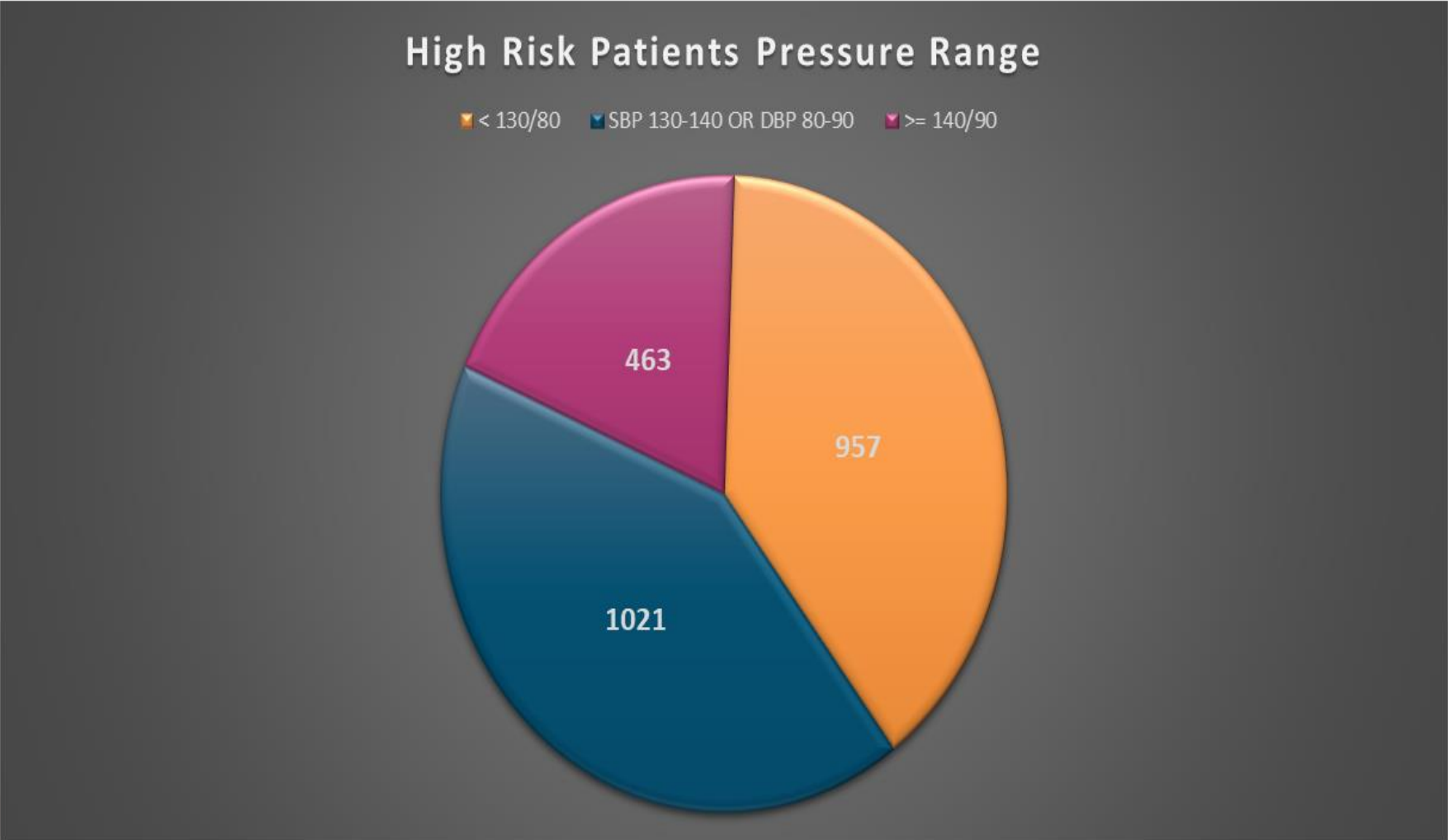
Blood Pressure Categories



BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 – 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 – 139	or	80 – 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

3,138 patients in our ACO population identified as high risk ASCVD >30%

Driving to better goal <130/80



3,138 patients in our ACO population identified as high risk ASCVD >30%

Driving to better goal <130/80

Current ASCVD risk score: The 10-year ASCVD risk score (Goff DC Jr., et al., 2013) is: 32.8%

Values used to calculate the score:

Age: 79 years

Sex: Female

Is Non-Hispanic African American: No

Diabetic: No

Tobacco smoker: No

Systolic Blood Pressure: 136 mmHg

Is BP treated: Yes

HDL Cholesterol: 36 mg/dL

Total Cholesterol: 151 mg/dL

Recommended follow up plan:

Statin (moderate to high intensity recommended) continue

List statin medication from chart and dosage

Blood pressure: **Goal for high risk patients < 130/80. not controlled** {Plan; hypertension:10600}

Tobacco use: {Tobacco cessation intervention:10328211}

Aspirin: {DRESSING; CONTINUE, DC, START:1052071601}

Low Sodium diet

Increase exercise

Mediterranean diet



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Mediterranean diet



3,138 patients in our ACO population identified as high risk ASCVD >30%

Driving to better goal <130/80

The screenshot displays a clinical dashboard with two main panels. The left panel, in a light teal color, contains patient location and visit information: 'Unit/Rm/Bed: STLMC INT MED TOWER A STE 189', 'Code: Prior (Adv Directive Received)', a search bar, and a visit summary: '12/5 OFFICE VISIT ESTABLISHED for Upper Respiratory Symptoms'. Below this, patient vitals are listed: 'Wt: 73.5 kg (162 lb)', 'BMI: 26.16 kg/m² !', and 'BP: 130/80 ! >1 day'. A red arrow points to the BP value. The right panel, in a light blue color, features an 'Encounter Guide' section with a refresh icon. Below it, a 'Quality (Measure: 1)' section shows a yellow alert box with an exclamation mark icon, the text 'Take Blood Pressure', a 'Recheck BP' button, and close/collapse icons.



Your life is our life's work.

Carolyn.Koenig@mercy.net