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COMMUNITY HEALTH
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Self Measured Blood Pressure (SMBP) Pilot Program

Experience and Learnings

AGENDA

1. Staging Process – Planning & Pilot
2. Project Goal
3. Target Population & Selection Criteria
4. Implementation Details
5. Results
6. Tools / Key Learnings
7. Next Steps

Planning Stage

- Multidisciplinary Collaboration
- Leadership Buy-in
- Project Team Meetings
- Project Monitoring Check-Ins
- Utilized Funder Resources
- Data Analysis to Identify Target Population, Pilot Site & Providers
- Prepared Program Materials
- Trained Staff
- Educated Providers
- Purchased Cuffs
- Created Scheduling Template
- Wrote Telephone Call Script

Pilot Stage

- Called & Scheduled Patients
- Implement 5-Visit Schedule
  - Initial Visit
  - One Week Follow Up
  - One Month Follow Up
  - Two Month Follow Up
  - Six Month Follow Up
- Managing BP Cuffs
- Downloaded BP Readings
- Scanned BP Readings to EHR
- Briefed Providers
- Engaged Patients in Ongoing Self Management

Program Goal

- To improve Blood Pressure Control for High Risk Patients
  - 40-64y with Hypertension and last BP reading of ≥160 systolic AND ≥ 90 diastolic within last 12 months
- To reduce Harm and High Risk for Heart Attack and/or Stroke
  - Lowering BP, not necessarily to a normal range
- To improve Patient Activation
  - Engaging them with their health and self care for the long run
- To utilize Team Based Care Approach
  - Involving the Patient, Provider, Medical Assistant, Nurse and trained Health Coaches along with support staff from Operations & QI

Data Findings

Item	#	%
Number of Patients Eligible at Target Site	35	100%
Number of Patients Called	35	100%
Number of Patients Successfully Scheduled	9	26%
Number of Patients Kept Appointments	9/9	100%
Number of Patients with Improved Medication List after Reconciliation	4/9	45%
Number of Patients with BP Readings Improved after SMBP	8/9	89%
Number of Patients with BP Readings at or below control (140/90mmHg)	2/9	22%

Key Learnings

- Multi-disciplinary approaches require frequent communication
- Significant risk reduction can be achieved in a concerted population by actively pursing individual cases
- SMBP is a useful tool for Patient Engagement and Patient Activation
- A half hour is not enough time.
- SMBP encounters bring value and quality to patient care by adding supplemental services like Health Coaching and Medication Reconciliation
- Once patients are enrolled, they are engaged and actively involved (e.g. keeping scheduled appointments with RN)

Next Steps

- Design a patient feedback item (e.g. satisfaction survey, pre/post survey, etc.)
- See through the 5 Visit Schedule (i.e. the first 6 month visits will occur in May) and gauge their overall progress
- Expansion of SMBP Project to an additional site by April 2019
- Share out data with Providers by Summer 2019 to gradually expand services to all sites over the course of the year
- Train more Nurses to carry out SMBP encounters and to complete Medication Reconciliation Process

Questions?

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ATTN: Please use this for the INITIAL SMBP visit

Patient Name: _____ Date: _____

1. Provide background on what SMBP is and why it's important
   - ☐ Explain SMBP
   - ☐ Inform the patient of the positive benefits of SMBP
   - ☐ Share educational SMBP resources
   - ☐ Measure and Document Manual BP reading
2. Assist the patient with using a device
   - ☐ Delete any past BP readings on the loaner device.
   - ☐ Ensure the loaner device or the patient's personal device has the correct cuff size.
   - ☐ Show the patient how to position the cuff correctly on their upper arm against bare skin.
   - ☐ Refer to the manufacturer's user manual for instruction on placement of the tubing.
   - ☐ Show the patient how to turn on the device and begin measurement.
   - ☐ When the cuff completes the deflating process and a reading is displayed, explain to the patient which numbers represent the systolic and diastolic blood pressure.
3. Help the patient prepare to measure blood pressure
   - ☐ Tell the patient to use the bathroom if needed.
   - ☐ Have the patient rest and sit in a chair for five minutes before starting.
   - ☐ Let the patient know not to talk, use the phone, text, email, or watch TV during the measurement. Explain that no one else should talk either.
   - ☐ Ask the patient to measure their blood pressure prior to taking their medication in the morning and evening.
   - ☐ Remind the patient to leave at least 30 minutes after eating before measuring blood pressure.
   - ☐ If the patient smokes, ask them not to smoke within 30 minutes of measuring blood pressure.
4. Guide the patient to correct posture for taking blood pressure measurements
   a. Teach the patient proper positioning:
      - ☐ Seated in a chair with back supported.
      - ☐ Legs should be uncrossed.

- ☐ Feet flat on the ground or supported by a footstool.
- ☐ Arm supported (suggest pillows if patient doesn't have a table high enough) with the blood pressure cuff on bare upper arm and positioned so that the cuff is at heart level.

5. Let the patient know how often to measure
   - ☐ Instruct the patient to take two readings, once in the morning and once in the evening, and inform the patient that the machine will take 3 readings back to back 1 minute apart*.
   - ☐ The patient should not remove the cuff between the two readings that are 1 minute apart.
6. Show the patient how to document blood pressure data
   - ☐ Use the printed log to show the patient how to document their blood pressure readings.
   - ☐ Show the patient how to retrieve the readings, including averages if calculated.
7. Prepare the patient for dealing with errors or problems
   - ☐ If an error reading occurs on the device, show the patient how to start over.
   - ☐ Provide the patient with instructions on what to do (including a number to call if possible) if readings show an abnormal blood pressure.
8. Ensure the patient understands how to correctly measure blood pressure
   - ☐ Ask the patient to "teach back" what he or she has learned and correct any mistakes
   - ☐ Provide a second demonstration if needed
   - ☐ Offer printed reminders or tips to help the patient remember what to do at home
9. Measure and record in-office BP Reading
10. Conduct Medication Reconciliation
11. Initiate Health Coaching Action Plan
12. Check-off the list and scan in patient chart

TARGET: BP™ | American Heart Association. AMA

What is self-measured blood pressure?

Self-measured blood pressure (SMBP) is when you measure your blood pressure outside of the doctor's office or other health care settings.

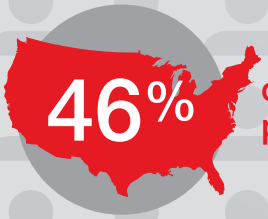
Why do I need to measure my blood pressure if my blood pressure was already measured at the doctor's office?

SMBP allows you to measure at different times throughout the day and over a longer period of time, helping your doctor get a more complete picture of your blood pressure.

How does SMBP help me with my health?

By using SMBP you and your care team can come up with a treatment plan to better control your blood pressure, which can prevent more serious health problems.

The consequences of hypertension can be costly … and deadly.



46% of Americans with high blood pressure are **not** controlled

What do the numbers mean when I take a blood pressure reading?

Systolic blood pressure (SBP or SYS): Top number of your blood pressure measurement, indicates how much pressure your blood is exerting against your artery walls when the heart beats

Diastolic blood pressure (DBP or DIA): Bottom number of your blood pressure measurement, indicates how much pressure your blood is exerting against your artery walls while the heart is resting between beats

Pulse: Number of times the heart beats per minute

What are some important things to know before I start measuring my own blood pressure?

Use an SMBP device and blood pressure cuff that are recommended by your doctor or care team.

If you purchase your own device, ask your care team to check it for accuracy.

Understand the correct way to take a blood pressure reading.

Know when and how you will share your blood pressure readings with your doctor.

Make sure you have instructions from your care team on what to do if your blood pressure is out of the expected range.

How to measure your blood pressure at home

Follow these steps for an accurate blood pressure reading

1 PREPARE

Avoid caffeine, cigarettes and other stimulants 30 minutes before you measure your blood pressure.

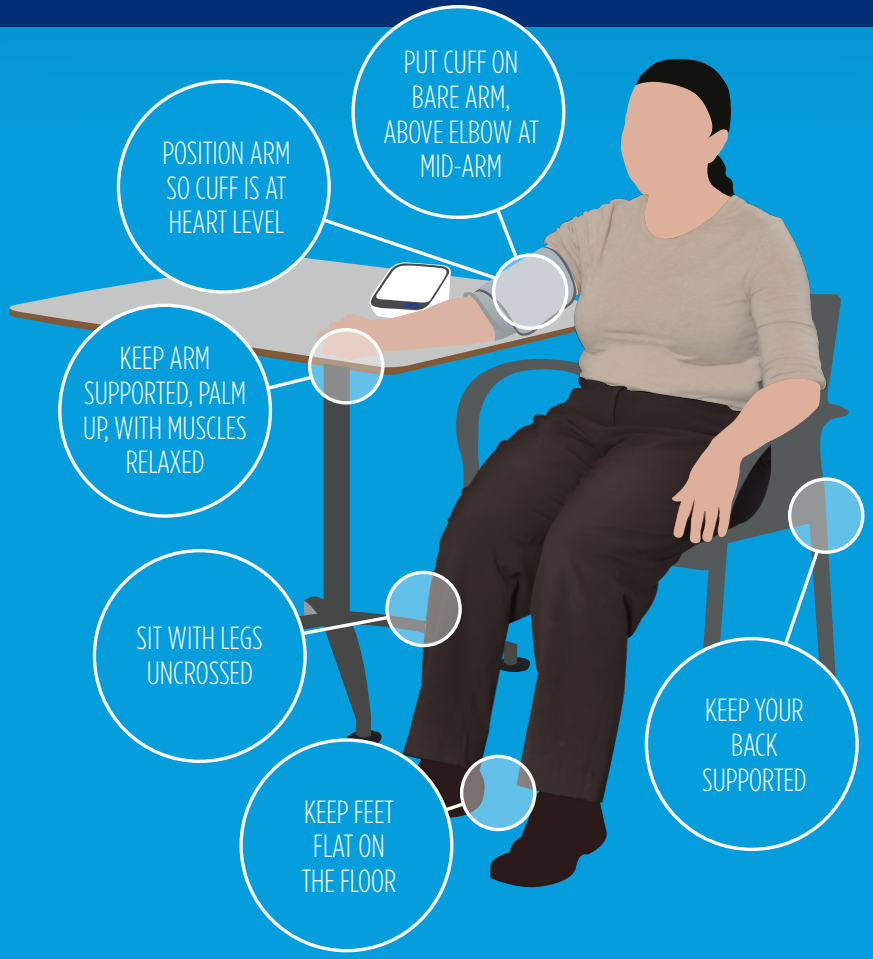
Wait at least 30 minutes after a meal.

If you're on blood pressure medication, measure your BP **before** you take your medication.

Empty your bladder beforehand.

Find a quiet space where you can sit comfortably without distraction.

2 POSITION



3 MEASURE

Rest for five minutes while in position before starting.

Take two or three measurements, one minute apart.

Keep your body relaxed and in position during measurements.

Sit quietly with no distractions during measurements—avoid conversations, TV, phones and other devices.

Record your measurements when finished.

TARGET:BP™

American Heart Association. life is why™

AMA AMERICAN MEDICAL ASSOCIATION

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Patient takes home to fill, scanned in chart after filled

7 Day Recording Sheet Self-Measured Blood Pressure Monitoring

Name

Date

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
MORNING AVERAGE	MORNING AVERAGE	MORNING AVERAGE	MORNING AVERAGE	MORNING AVERAGE	MORNING AVERAGE	MORNING AVERAGE
SYS DIA	SYS DIA	SYS DIA	SYS DIA	SYS DIA	SYS DIA	SYS DIA
PULSE	PULSE	PULSE	PULSE	PULSE	PULSE	PULSE
NOTES	NOTES	NOTES	NOTES	NOTES	NOTES	NOTES
EVENING AVERAGE	EVENING AVERAGE	EVENING AVERAGE	EVENING AVERAGE	EVENING AVERAGE	EVENING AVERAGE	EVENING AVERAGE
SYS DIA	SYS DIA	SYS DIA	SYS DIA	SYS DIA	SYS DIA	SYS DIA
PULSE	PULSE	PULSE	PULSE	PULSE	PULSE	PULSE
NOTES	NOTES	NOTES	NOTES	NOTES	NOTES	NOTES

For office use only:

PRACTICE ADDRESS

PHONE

EMAIL

PATIENT PORTAL

NEXT APPOINTMENT DATE & TIME

- ☐ **Diagnostic SMBP**, measure for 7 consecutive days
- ○ **Confirmed hypertension**, measure for 7 consecutive days prior to next office visit

Report Back Results By

- ☐ Phone
- ☐ Patient portal
- ☐ Bring back device or written log
- ☐ Other

If your blood pressure measurement is:

MORE THAN	BETWEEN		LESS THAN
SYS DIA	SYS DIA & SYS DIA		SYS DIA
Your blood pressure is high. Recheck in 5 minutes. If it remains in this range, call your physician immediately.	**This is the desired range for your blood pressure.** Please continue to monitor your blood pressure as you have been instructed by your care team.		**Your blood pressure is low.** Recheck in 5 minutes. If it remains in this range, call your physician immediately.

INSTRUCTIONS: If at any time you feel light headed or have a headache, check your blood pressure and call the office immediately.

Provided by American Medical Association and the American Heart Association through the TargetBP program.

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Scan in Patient Chart

Self-measured blood pressure monitoring

Loaner program agreement

FOR OFFICE STAFF

Lender information

Livingston Community Health

Organization name

1140 Main Street, Livingston, CA, 95334

Address

209-394-7913

Phone number

Equipment information

Omron 10 Series

Device manufacturer and model

Device ID

Supplies (check all that apply):

- ☐ BP cuff (variable size)
- ☐ BP cuff (XL)
- ☐ Carrying case
- ☐ Batteries _____
- ☐ Power cord
- ☐ Other _____

Patient information

Name

Patient ID

Preferred contact information (phone or email)

Return by: _____/_____/_____
Month Day Year

☐ I agree to participate in the self-measured blood pressure device loaner program and follow the guidelines given to me.

☐ I agree to return this device in good working condition on or before its due date.

Patient signature **Date**

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ATTN: Please use this for the 1-Wk Follow-up SMBP visit

Patient Name: _____

- ☐ Check-in loaner device and document in Inventory Log
- ☐ Acquire Patient Feedback
  - o Any difficulties in operating the device
  - o Number of readings missed _____
  - o Review any concerning reasons for missed readings
- ☐ Review the readings with patient
- ☐ Cross-check BP readings from the patient's log with the machine memory and correct any errors in the patient's log
- ☐ Review readings with provider (if needed)
- ☐ Award Health Coaching Certificate
- ☐ Schedule SMBP 1 Month follow-up (If not already scheduled)
- ☐ Schedule follow-up appointment with Provider (If not already scheduled)
- ☐ Document home BP readings in EHR (Health Coaching Template)
- ☐ Send the patient log
- ☐ Disinfect and store the device
- ☐ Check-off this list and send to medical records to scan in patient's charts

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My Health In Motion

Health Education Referral

Referred by: _____ **Date:** _____

Provider Information

Provider Name: _____ **Diagnosis:** _____

Phone Number Extension: _____

Patient Information (Label)

Insulin: Yes ☐ **No** ☐

Name: _____ **Language Spoken:** _____

MRN: _____ **Phone Number:** _____

DOB: _____

☐  ☐  ☐  ☐ 

☐ 

Health Education Services/Health Coach

- ☐ **Diabetes: Type 1** ☐ **Type 2** ☐ **Gestational** ☐
- ☐ **Asthma- Persistent Only**
- ☐ **Hypertension** ☐ **High Cholesterol** ☐
- ☐ **Blood Pressure Check**
- ☐ **Weight: Pediatric Obesity (BMI greater than 95th%)HWFL**
- ☐ **Weight: Adult Obesity (BMI 30+)**
- ☐ **Nurse Visit Scheduled: Date/Time** _____
- ☐

Campus Medical /Delhi Medical Classes

- ☐ **Diabetes- The Disease Process**
- ☐ **Blood Glucose Monitoring Nutrition Exercise**
- ☐ **Considerations DM/HTN Medications**
- ☐ **Complications of Diabetes/HTN**
- ☐

Scheduled for: Appointment ☐ Class: ☐

Weekly Scheduled Classes
Days: Monday/Wednesday/Friday
Times: Spanish Classes: 9-10am
English Classes: 10:30-11:30am

Date taken: _____

Height: _____ **Weight:** _____ **BMI:** _____

A1C: _____ **B/P** _____

Provider Signature: _____

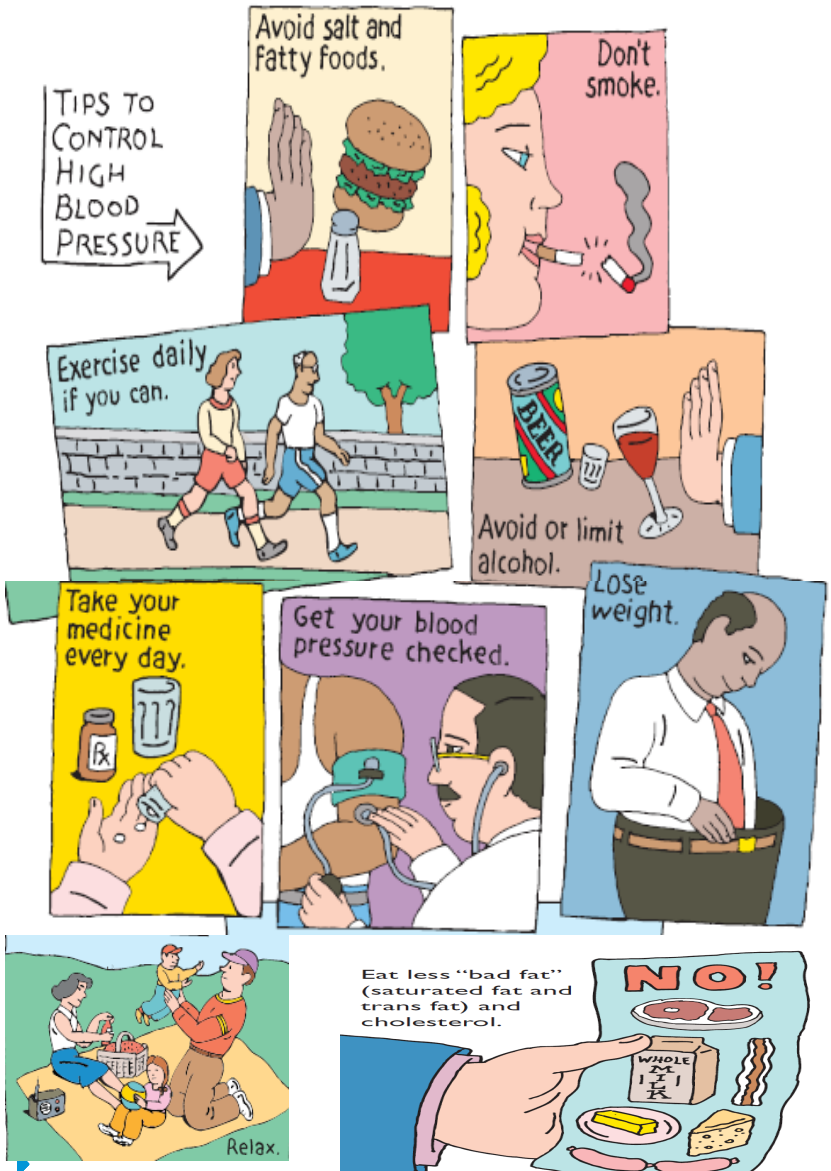
Instructions/Comments: _____

_____

Contact Information:

Rosa Pavey : 209-761-2795 ● **Ivan Prado 209-466-2771** ● **Liliana Zaragoza : 209-850-0098**

HIGH BLOOD PRESSURE AND DIABETES



Good blood pressure control is important for people with diabetes.

Diabetes increases your risk (chance) of having high blood pressure. Diabetes and high blood pressure both increase your risk for heart attack or stroke.

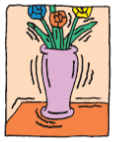
HIGH BLOOD SUGAR
(HYPERGLYCEMIA)

Keeping your blood sugar under control is important. Too much sugar in your blood, for too long, can cause serious health problems.

Common Causes: Too much food, not taking enough insulin or diabetes pills, being less active than normal, stress or illness.

Symptoms include:

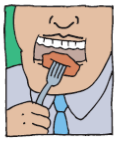

Thirsty all the time


Blurry vision


Need to urinate often


Weak or tired


Dry skin


Often hungry

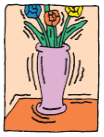
LOW BLOOD SUGAR
(Hypoglycemia)

A low blood sugar can happen quickly. If not treated right away, low blood sugar can cause a medical emergency. You can even pass out.

Common causes: Skip a meal or not eat enough food; too much insulin or diabetes pills; more active than usual.

Warning signs include:


Shaky or dizzy


Blurry vision


Weak or tired


Sweaty


Headache


Hungry


Upset or nervous

Every 3 Months

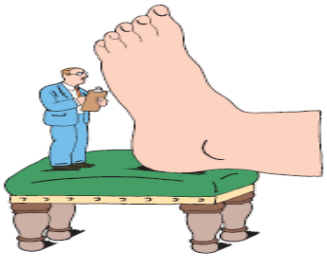
Regular doctor's office visit

A1C blood test
Every 3 months if your blood sugar (glucose) number is *too high*

Blood pressure check

Weight check

Foot check



Be active 30 minutes a day, or more, in ways my doctor OK's.

Check your blood pressure and blood sugar. Write the results in a diary/log.

Keep my Doctors appointments. Obtain recommended labs.

_____Action Plans for Success

(Your name here)

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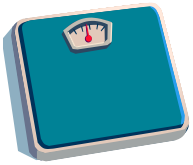
Success Level: How sure are you that you can reach your goal? On a scale of 1-10, 1 means you are not sure at all, 5 means you are pretty sure you will meet your goal and 10 means you know you will be successful.

Goal Topic	Action Plan	Success Level (1-10)	Start Date
Example	What I am going to do ___walk_____ How often will I do it___3 times a week__ When will I do it ____after dinner___ What time will I do it ___6-6:30PM_____ What support do I have__ walking club___		
Exercise 	What I am going to do_____ How often I am going to do it_____ What time am I going to do it_____ What support do I have_____		
Healthy Eating 	What I am going to do_____ How I am going to do it_____ When am I going to do it_____ What support do I have_____		
Weight Loss 	What I am going to do_____ How am I going to do it_____ My first weight loss goal is_____ What support do I have_____		

Goal Topic	Action Plan	Success Level (1-10)	Start Date
Monitoring 	What I am going to do_____ How often I will do it_____ What time will I do it_____ What support do I have_____ (glucose checks, blood pressure, other)		
Medications 	How will I remember to take my medicine _____ How will I remember to re-order my medicine_____ What support do I have_____		
Stress Management 	What I am going to do_____ How often will I do it_____ When will I do it_____ What support do I have_____ (read, yoga, meditation, prayer)		
Stop Smoking 	What I am going to do_____ How I am going to do it_____ When I am going to do it_____ What support do I have_____		
Foot care 	What I am going to do_____ When I am going to do it_____ What time will I do it_____ What support do I have_____		
Dental Exam 	When I am going to make my appointment_____ What support do I have to get there_____		
Dilated Eye Exam 	When I am going to make my appointment_____ What support do I have to get to my appointment_____		

BUILDING A DATA DRIVEN CULTURE – CASE STUDY

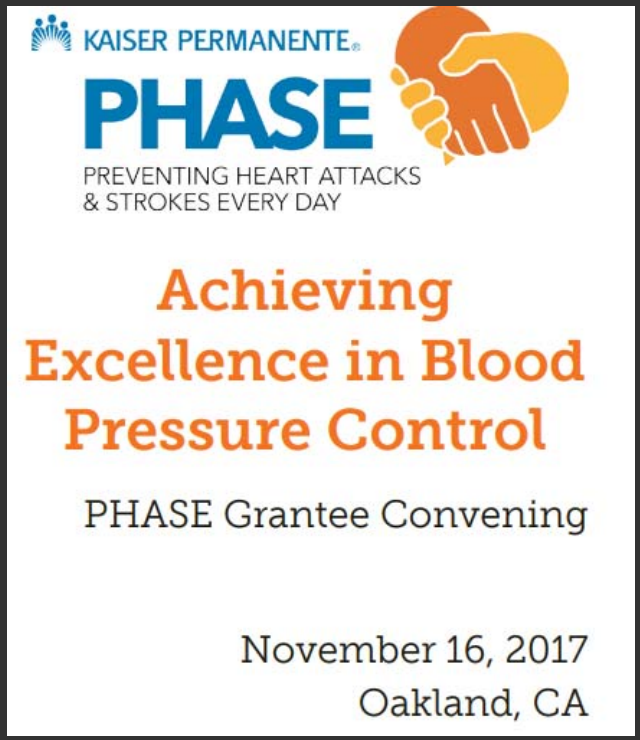
Chetan Gujarathi, MD, MHA

AGENDA

- Identifying focus area
- Formulating strategy
- Example of a failure
- Building data capacities
- Leadership buy-in
- Provider buy-in
- MA Training and competencies
- Health Coaching program
- Sequential identified and de-identified data sharing
- Provider refresher training
- Self-monitored Blood Pressure program
- Results
- Key Learnings

IDENTIFYING FOCUS AREA

- Aided by PHASE's focus on HTN
- First ideas gathered on Nov-25-2017 Convening
- Self-monitored Blood Pressure presentation was instrumental

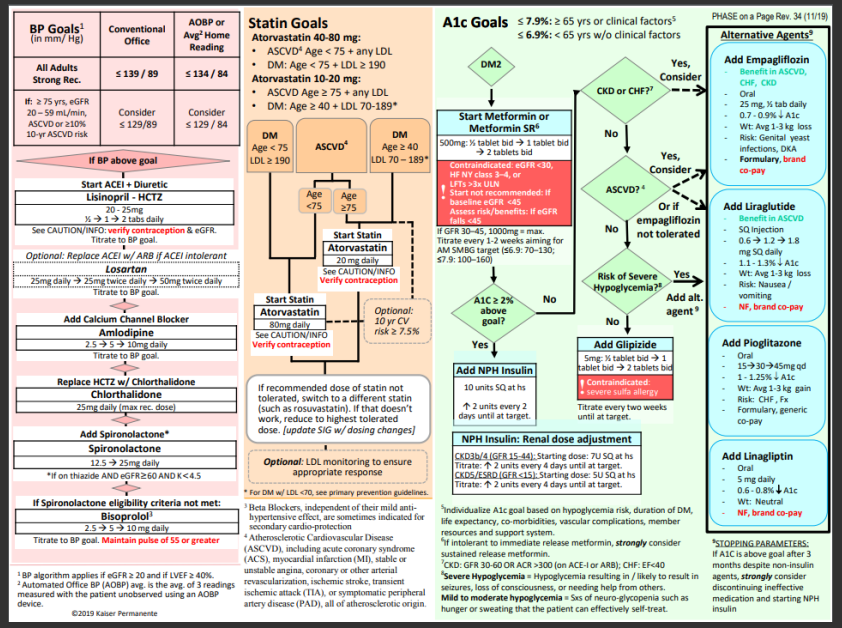


FORMULATING STRATEGY

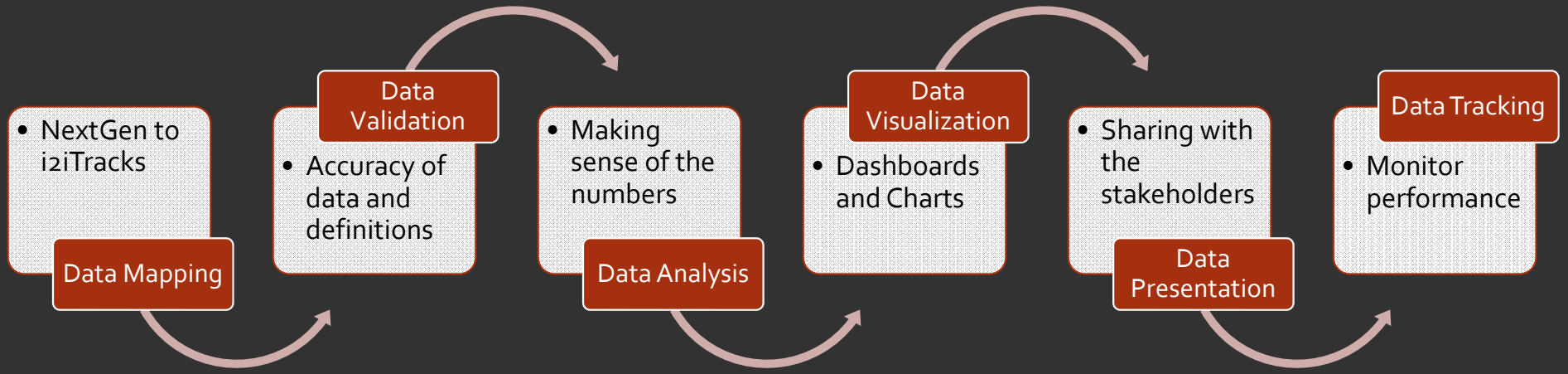
- Get a clear picture of HTN Control
- Data with high integrity
- Scalability of the project – building a sustainable template
- Non-disruptive / non-intrusive
- Adhering to evidence-based guidelines
- Simple, measurable and efficient interventions

EXAMPLE OF A FAILURE

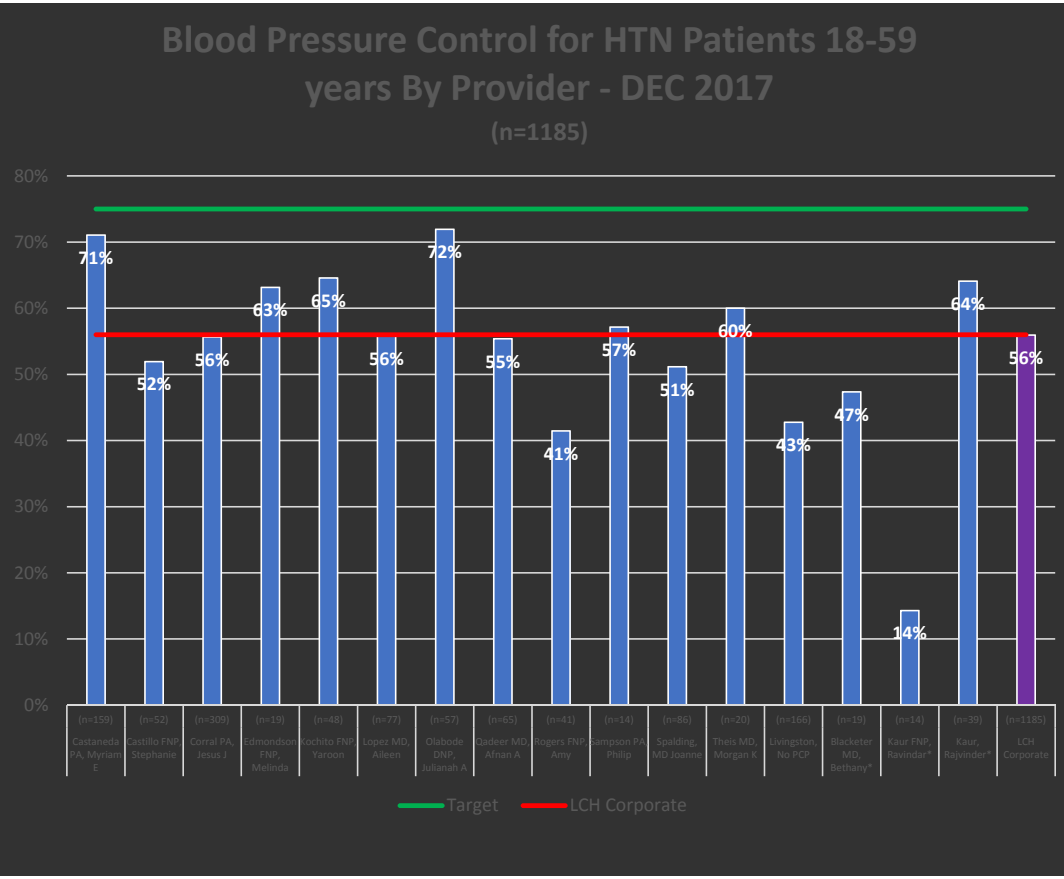
- Simple strategy of including PHASE on a Page algorithm in the provider's HTN workflow
- CMO shared at the Provider meeting
- Laminated copies of the algorithm were placed in a visually accessible area at the provider stations
- Outcome - Insignificant

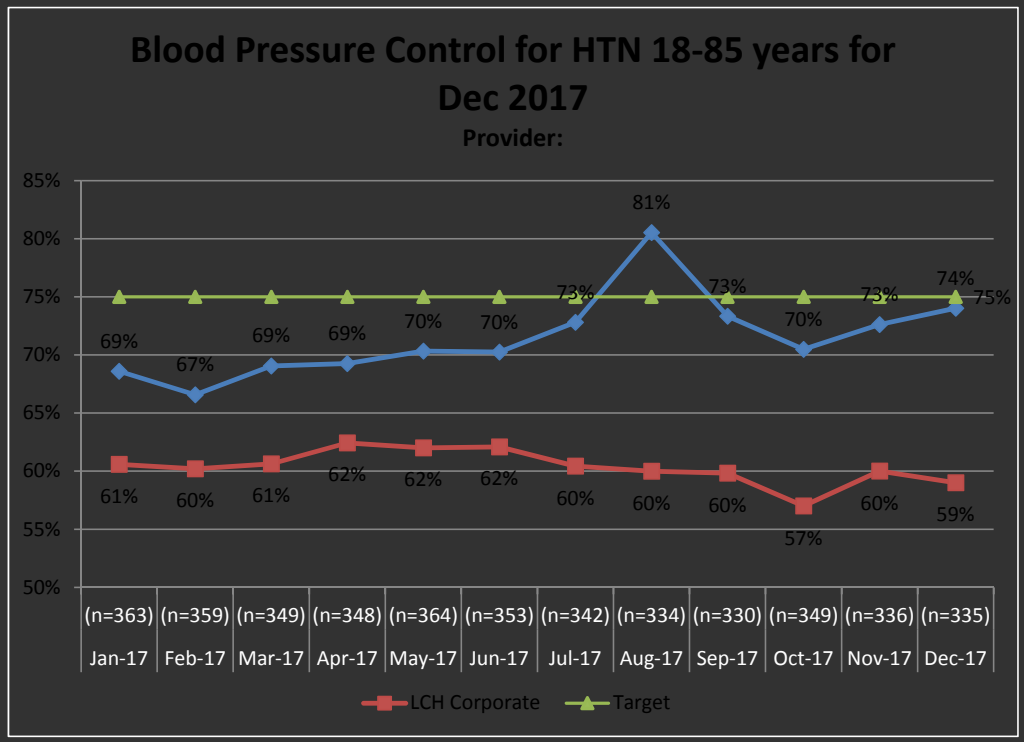


BUILDING DATA CAPACITIES



BUILDING DATA CAPACITIES





BUILDING DATA CAPACITIES

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Hypertension Health Coaching Dashboard - May 2019

Hypertension: General

General	Count	Baseline	Target	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Trend
Total HTN	**2040**					**2134**	**2155**	**2155**	**2189**	**2187**	**2179**	**2191**	**2190**	**2140**	**2040**	
HTN + HC	197/2040	**4%**		4%	4%	5%	5%	6%	6%	7%	8%	8%	9%	9%	10%	
HTN No HC	1843/2040	**96%**					95%	94%	94%	93%	92%	92%	91%	91%	90%	
Controlled HTN[1]	**1346/2040**	**61%**		**61%**	**62%**	**63%**	**63%**	**64%**	**64%**	**63%**	**64%**	**65%**	**68%**	**68%**	**66%**	
Health Coaching	132/197	**69%**		69%	66%	67%	64%	69%	71%	68%	63%	66%	72%	69%	67%	
No Health Coach	1214/1843	**60%**		60%	62%	62%	63%	64%	63%	63%	64%	65%	67%	68%	66%	
Uncontrolled HTN	**694/2040**	**39%**		**39%**	**38%**	**37%**	**37%**	**36%**	**36%**	**37%**	**36%**	**35%**	**32%**	**32%**	**34%**	
Health Coaching	65/197	**31%**		31%	34%	33%	36%	31%	29%	32%	37%	34%	28%	31%	33%	
No Health Coach	629/1842	**40%**		40%	38%	38%	37%	36%	37%	37%	36%	35%	33%	32%	34%	

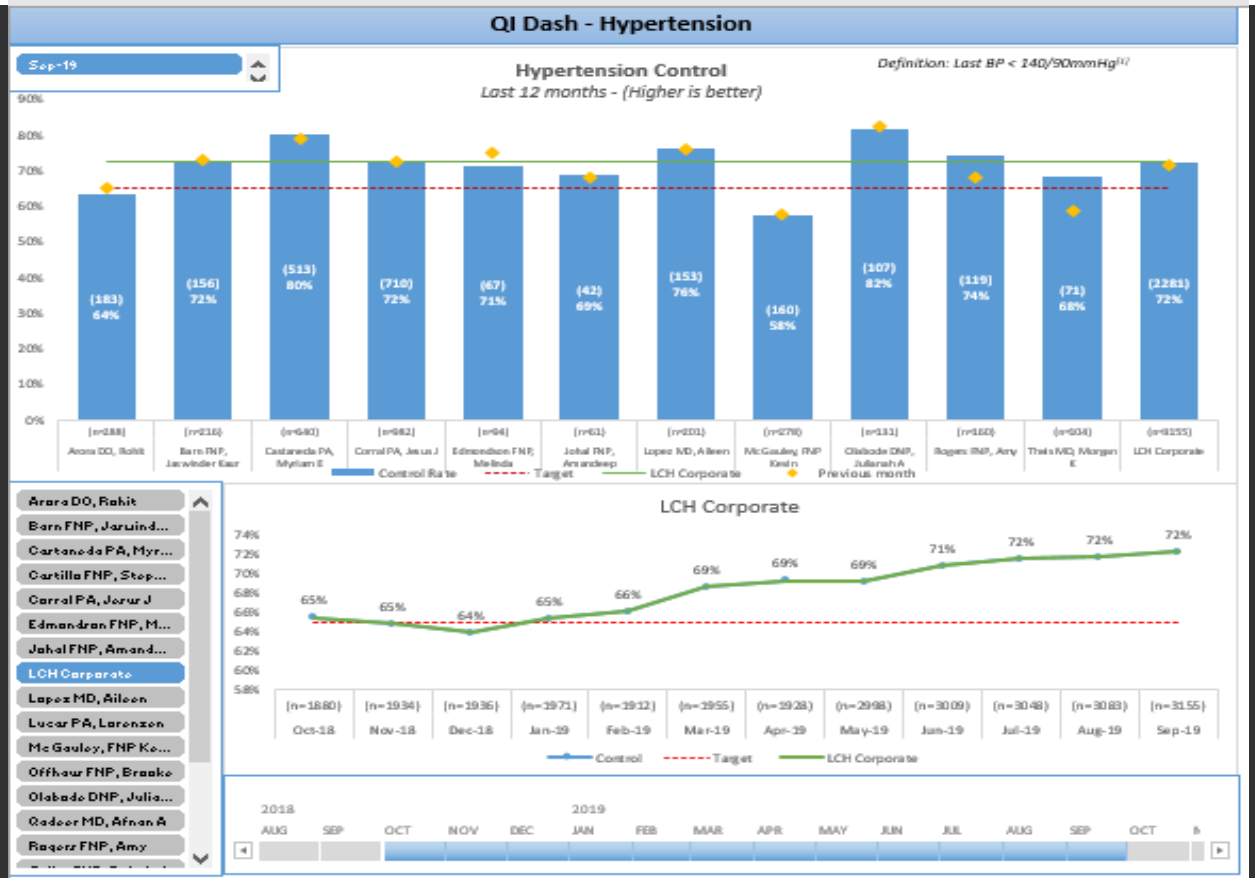
Hypertension: High Risk

High Risk[2]	Count	Baseline	Target	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Trend
	36			64	66	66	62	61	59	52	47	43	44	42	36	
40-64y + >160/90	**36/1225**	**5%**		**5%**	**5%**	**5%**	**5%**	**5%**	**4%**	**4%**	**4%**	**3%**	**3%**	**3%**	**3%**	
Health Coaching	7/36	**4%**	**80%**	4%	7%	8%	10%	9%	12%	15%	13%	12%	11%	17%	19%	

[1] *General HTN Control: 140/90mmHg for 18-59y & 60-85y with DM. 150/90mmHg for 60-85y with no DM*

[2] *High Risk Age Group: 40-64years*

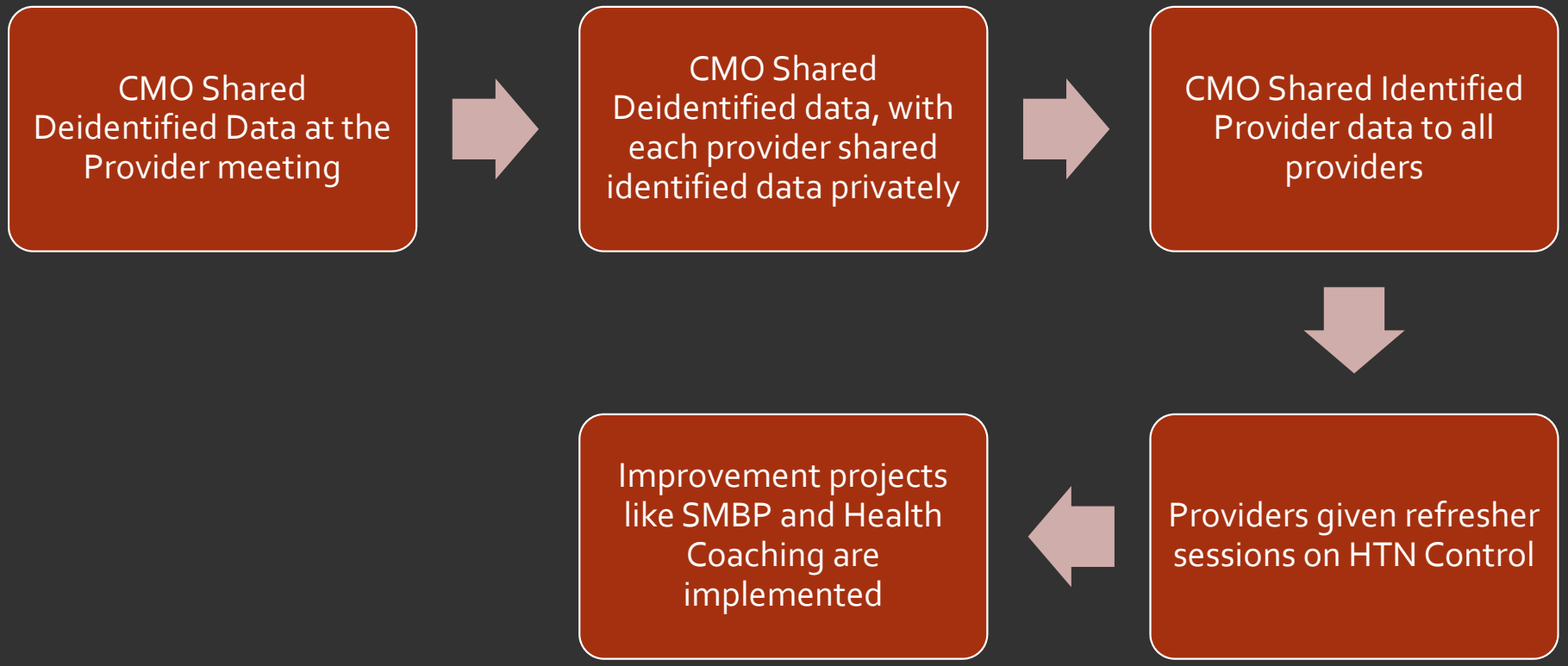
BUILDING DATA CAPACITIES



LEADERSHIP BUY-IN

- Data presented to CMO, COO and DON for three consecutive months to display consistency and improve confidence in the data.
- Utilized dedicated PHASE Team meetings for data presentation
- Meanwhile QI team continued to refine the dashboards

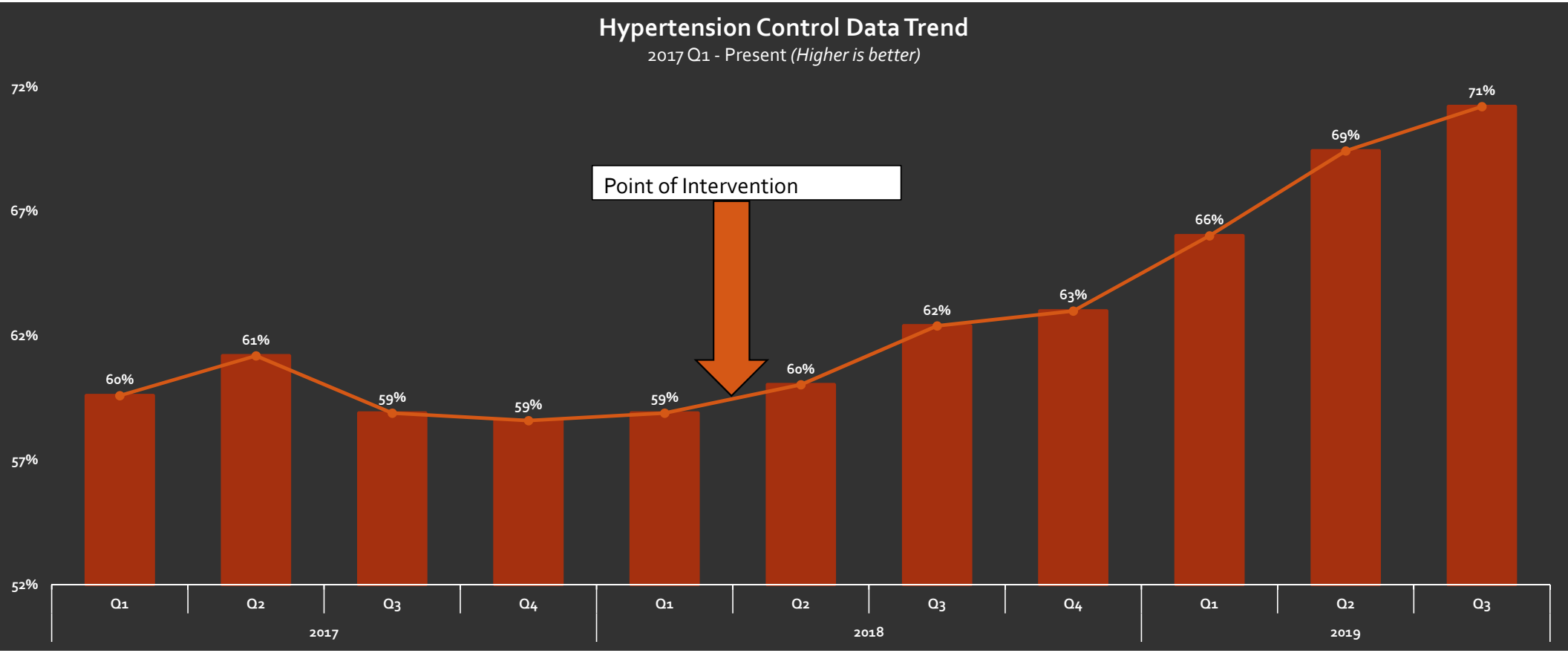
PROVIDER BUY-IN



ADDITIONAL EFFORTS

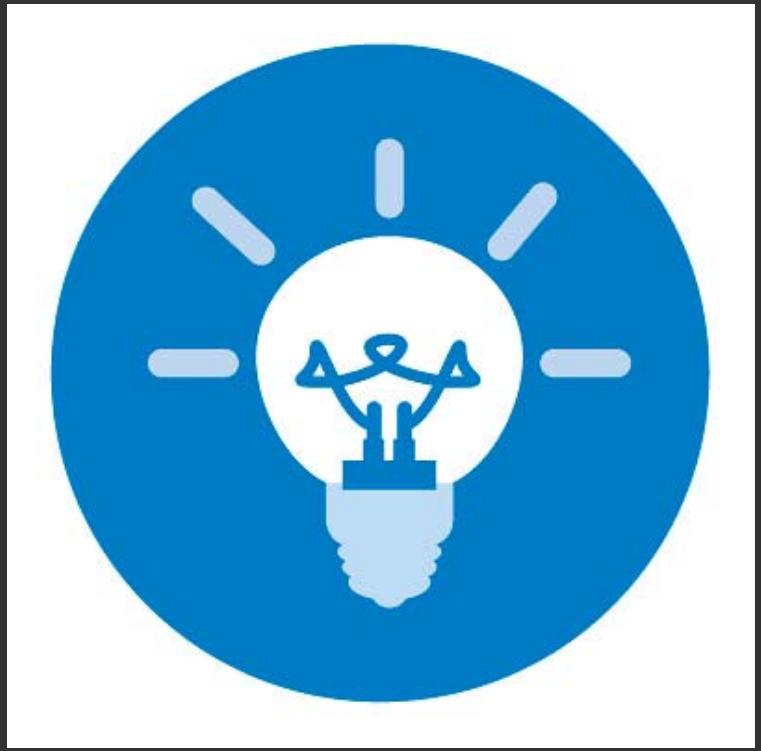
- Dedicated Health Coaching for HTN
- Health Coaching data dashboards
- Implementation of Self Monitored Blood Pressure Pilots
- Results of SMBP shared across the clinical care teams
- Regular MA Competencies and refreshers
- Nursing training and competencies

OUTCOME


Hypertension Control Data Trend
2017 Q1 - Present (Higher is better)
72%
67%
62%
57%
52%
Point of Intervention
60%
61%
59%
59%
59%
60%
62%
63%
66%
69%
71%
Q1
Q2
Q3
Q4
Q1
Q2
Q3
Q4
Q1
Q2
Q3
2017
2018
2019

KEY LEARNINGS

- Leadership involvement in QI Projects is critical
- Data shared by direct department head is well-received
- QI team needs to demonstrate consistency and confidence in data
- Make data available freely to clinical teams
- Scalable interventions for other chronic conditions like DM, Obesity, Asthma, etc.



QUESTIONS?

Thank you.