KAISER PERMANENTE® PHASE PREVENTING HEART ATTACKS & STROKES EVERY DAY

CCI CENTER FOR CARE INNOVATIONS

KAISER PERMANENTE® TC3 TRANSFORMING CARDIOVASCULAR CARE IN OUR COMMUNITIES

Riverside University HEALTH SYSTEM

Healthy Hearts Healthy Homes
1/22/2021

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Indio and Banning Clinic Teams

WHAT WERE WE TRYING TO ACCOMPLISH?

Problem Statement

The prevalence of high blood pressure in Riverside County (33.1%) exceeds the state and national average (2017). At Riverside University Health System (RUHS), over 10,000 patients seen in our ambulatory clinics are diagnosed with hypertension. RUHS hopes to improve the care of its patients with high blood pressure and empower more patients to make healthy choices in their lifestyles and reduce the risk of heart attacks and strokes.

Aim Statement

By March 31, 2021, RUHS will improve and sustain the rate of blood pressure control at its Indio clinic >80%.

By March 31, 2021, RUHS will meet or exceed the HEDIS 75th percentile stretch goal (64.79% for Medicaid) for at least 8 sites, with the goal that all sights show sustainable improvement from current baseline

Health Equity Aim Statement

At RUHS's Indio clinic, the target population is patients 18 and older with a diagnosis of hypertension, and the majority of patients will be Latino/Hispanic background, low income, and have Medi-Cal or are uninsured.

WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

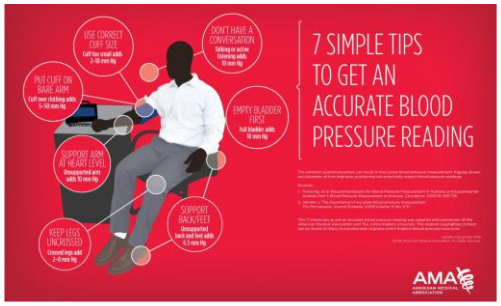
Our Theories for Change: How We Learned About Our Process

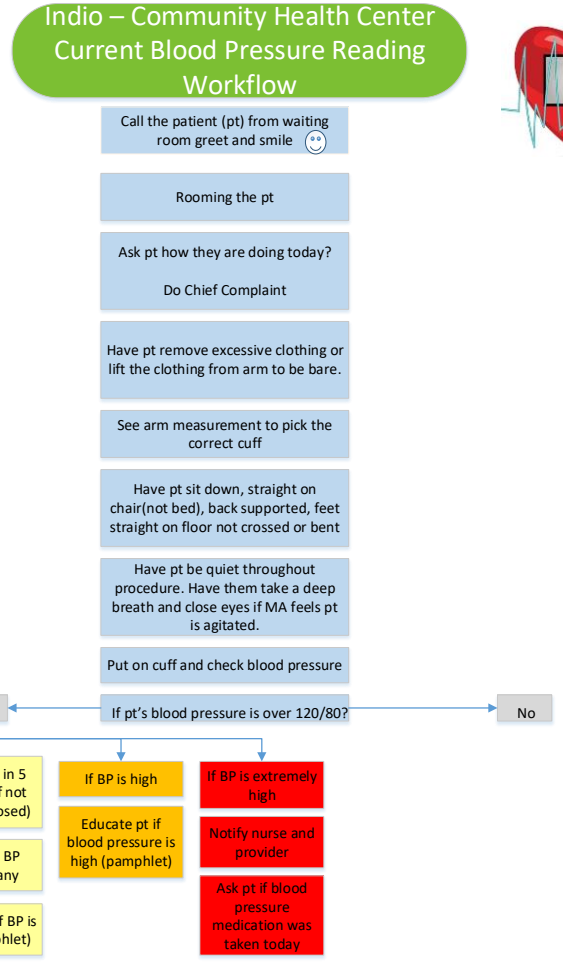
Process Flow Map

Process Observations

Our goal was to learn from our high achievers, so we chose our Indio clinic to perform workflow observations, conduct best practice and workflow design sessions to creating an ideal workflows to spread to all clinics.

Process Step/ Focus Area	Assumptions • What questions do I have regarding the *current* state process? • What do I want to learn about? • What am I looking for?	Observations • What is being done • Who is doing it? • When are they doing it? • How are they doing it? • What is the patient-family experience like?	Opportunities • What ideas for improvement did you note? • What might be done *differently* to improve the process? • Does physical environment contribute to efficiency of task(s) (e.g., do staff have to move from place-to-place to gather materials/equipment, usher patients, use EHR) • Are there delays or wait-times? How might delays/wait-times be used to add patient value? • Are there tasks/activities that seem unnecessary (busy work or overwork)? • Were "breaks" or "gaps" in the process observed? • Was there evidence of a work-around or short-cut? If so, is there evidence as to why/how the need arose to use the short-cut or work-around?
MA conducting intake/rooming	• At what point in the visit is BP measured? • Where in the clinic is the patient's BP measured? • What technique is used to take BP? • What actions does the MA take when the BP measure results are abnormal? • Is any hypertension education provided by the MA to the patient? • Is there a warm hand-off from MA to provider regarding abnormal BP reading?	• VS are taken as soon as patient is roomed and sits down. • MA did many of the proper techniques such as removing sleeve and having feet uncrossed, however did not keep arm at level of the heart and was talking. • Your BP is "high". I will recheck in 5 min. Asked patient if they took their medications. • No education • Hand-off was done to provider (NP) with results of BP. Hand off was requested by NP who saw initial first high BP in the visit note.	• Revise workflow order to move BP check later in the rooming. i.e. have MA start with AIDET scripting "how have you been doing since your last visit?" (ask input from Latrice) then do medication check. • Chairs that patients sit in do not promote elevation of the arm. MA would need to hold or prop up on VS machine.

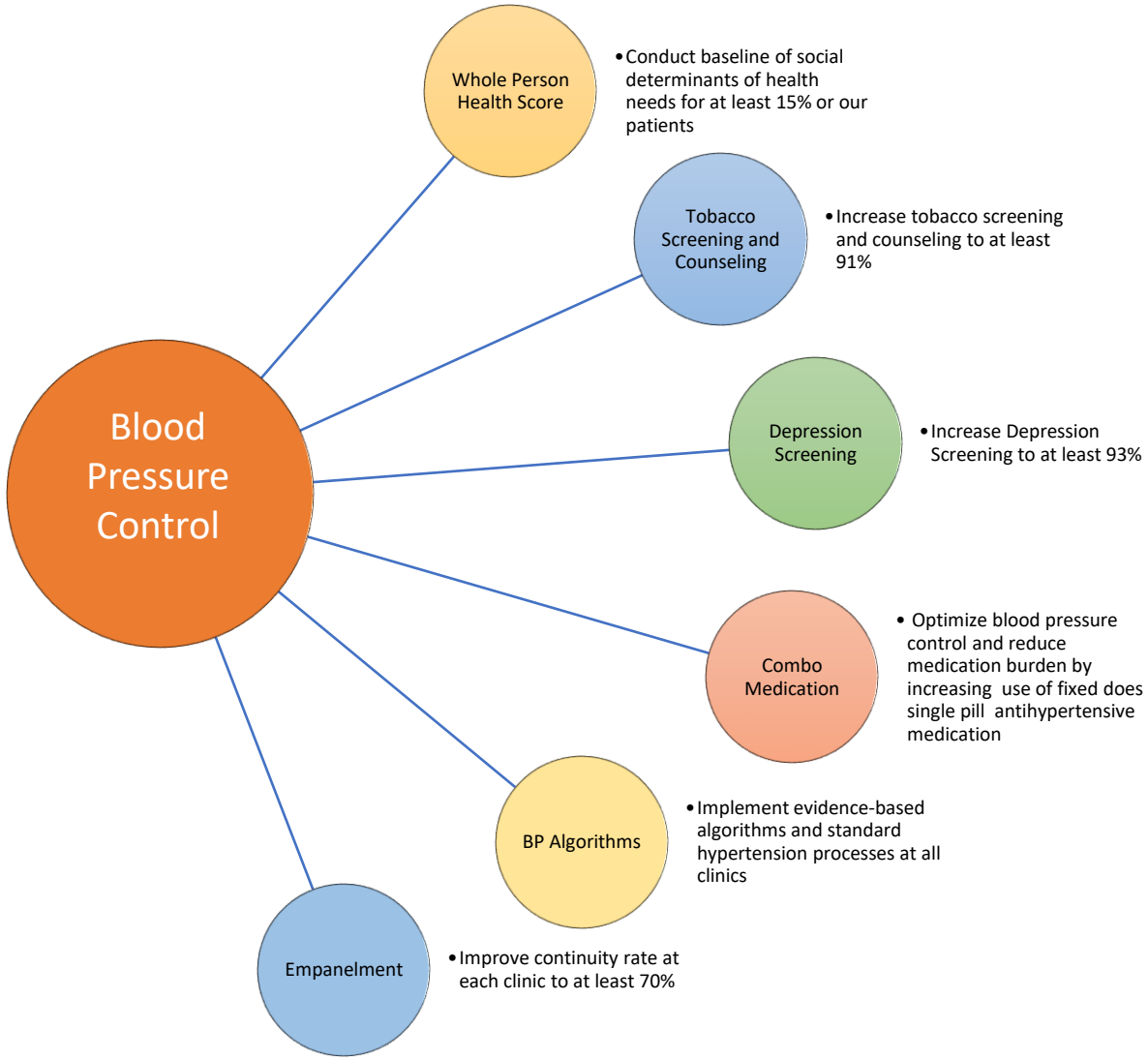




WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Supportive Improvements

Grant Work Plan



WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Process for Selecting Test Ideas

How We Engaged the Patient
"Voice of the Customer"

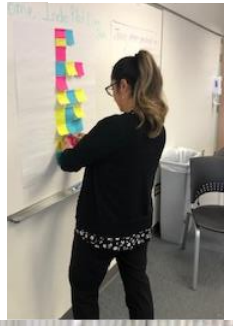
We found that many of our patients were not aware of what a normal blood pressure range vs unhealthy blood pressure range. We added reference cards to each of our vital sign machines and educated patients about their blood pressure range with each blood pressure measurement.

How We Engaged Leaders, Providers, and Staff

- "Design and Dine" workflow session with Indio staff February 2020

  We wanted to:

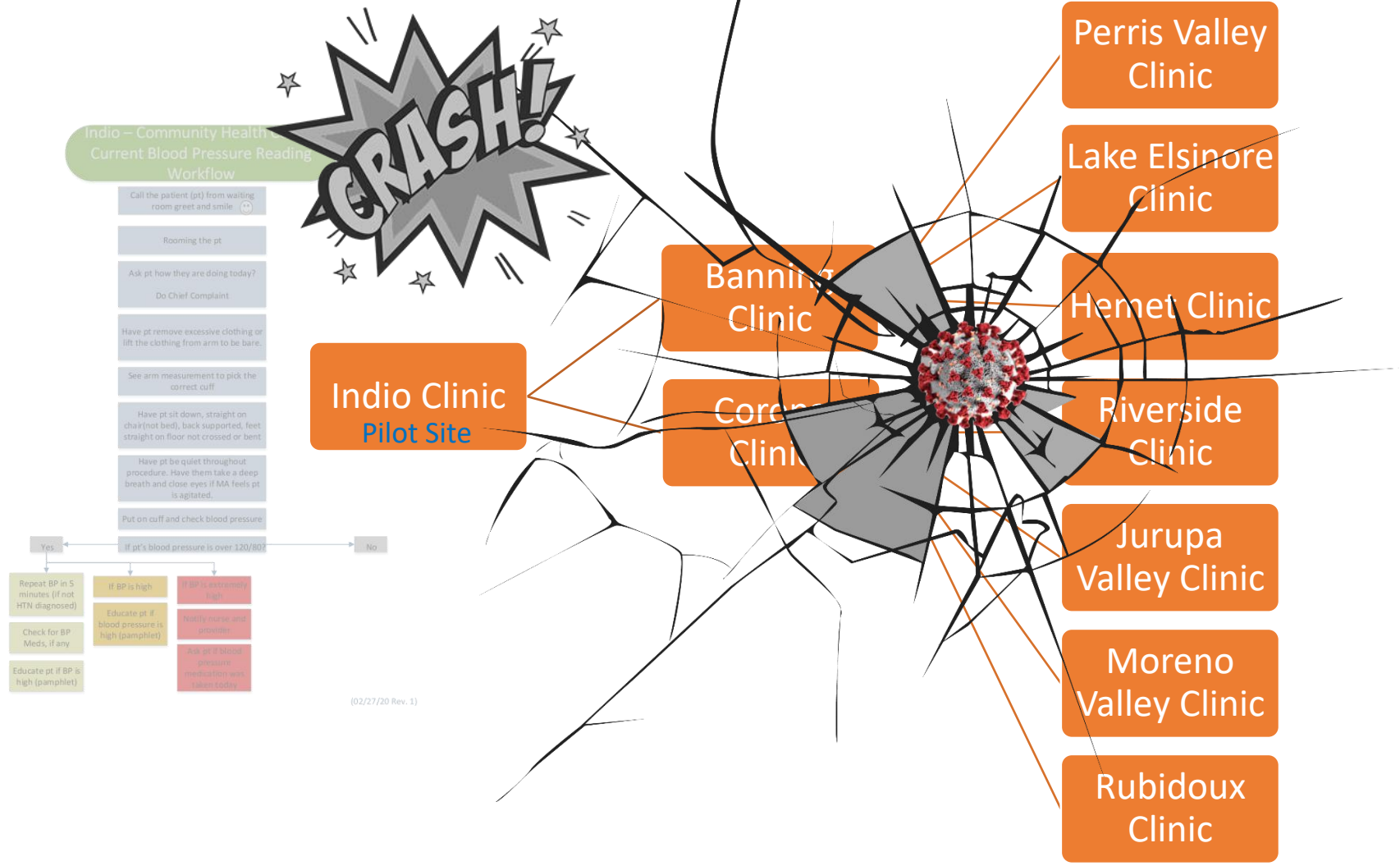
  - Heighten awareness and educate MAs on the importance of proper BP techniques, processes, and overall understanding on how BP impacts the health of our patients
  - Obtain MA feedback regarding workflows and understand reasons for current workflows/techniques
  - Create workflow for educating patients regarding healthy blood pressure ranges.
  - Engaged MA in developing best practice workflow.
  - Understand reasons for current workflows/techniques
  - MA's felt empowered.



WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Our Theories for Change: How We Learned About Our Process

Preparing to Spread Best Practice Standard Workflow - and then . . .



WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Our Theories for Change: How We Learned About Our Process

Adapting to Change

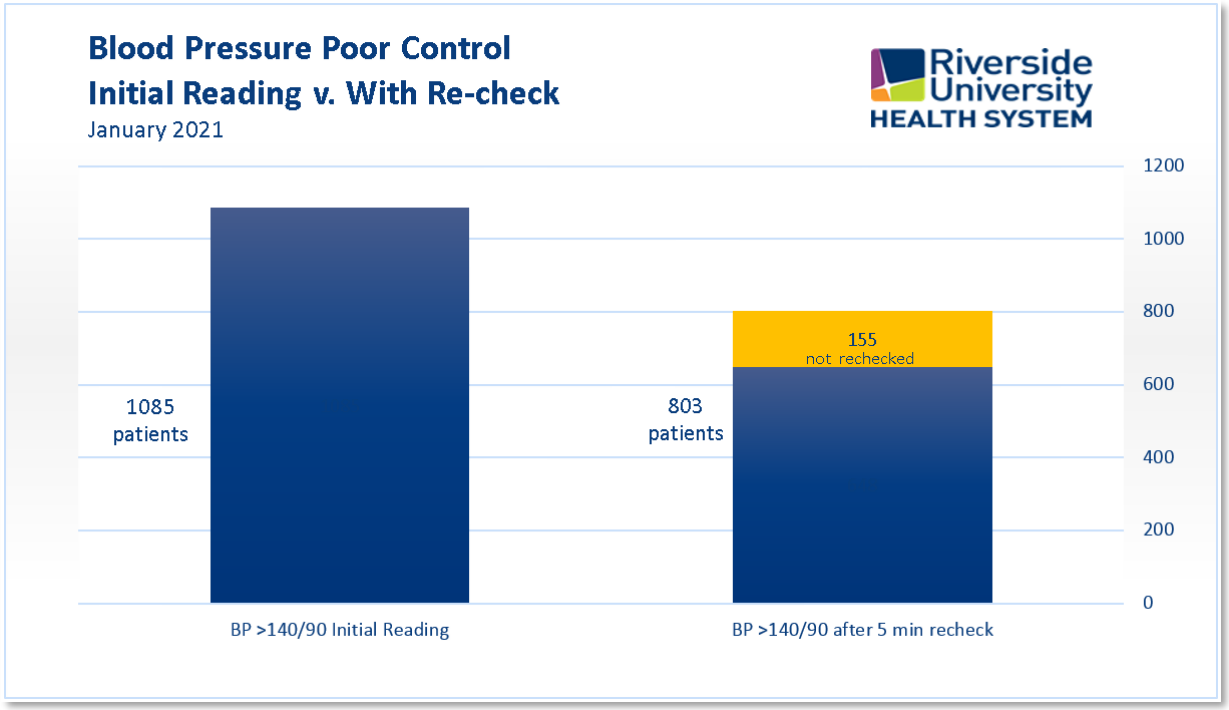
As RUHS operationalized its response to the pandemic, the focus of the TC3 efforts changed. RUHS has to re-design and standardize telehealth workflow. Performance improvement work shifted from optimizing and standardizing blood pressure workflow to optimizing EHR tools to support blood pressure management and begin work on SMBP

WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Our Theories for Change: How We Learned About Our Process

What did our data show?

We analyzed our data and learned that by re-checking a blood pressure after 5 minutes, approximately **20%** more of our hypertensive patients were **at goal** when a second blood pressure was checked.



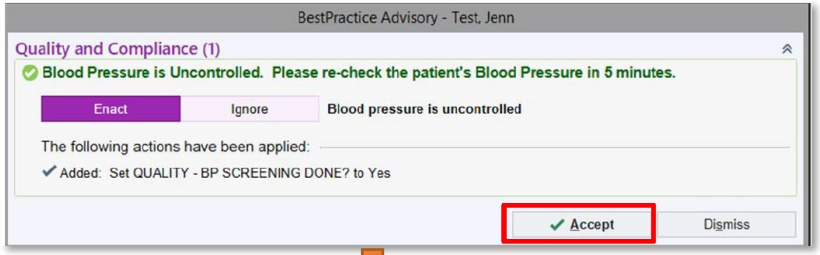
- 20% more patients who did not need medication adjustment
- 20% more patients that did not need a return visit in 2 weeks

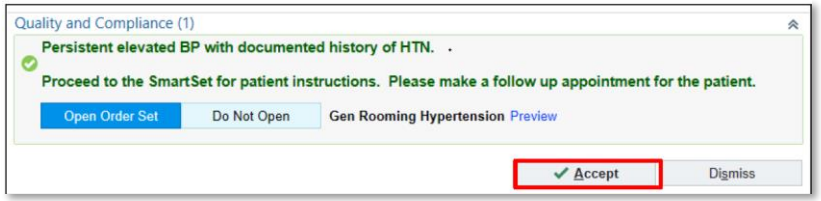
WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Best Practice Advisory

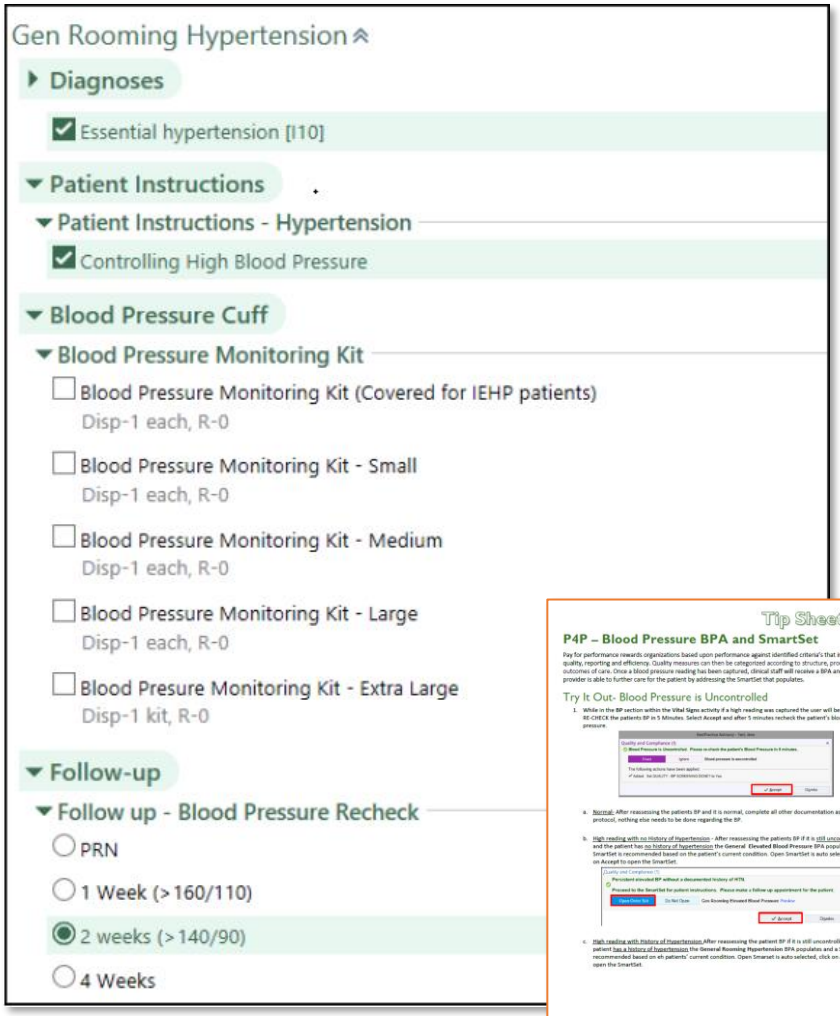
Smart Order Set

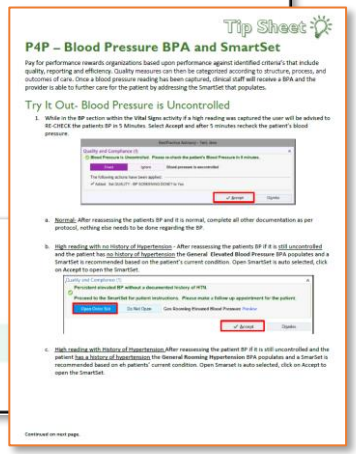
EHR alerts were designed and built to help promote blood pressure re-checking and facilitate appropriate follow-up actions for patients with blood pressure not at goal.





Launched 9/9/2020

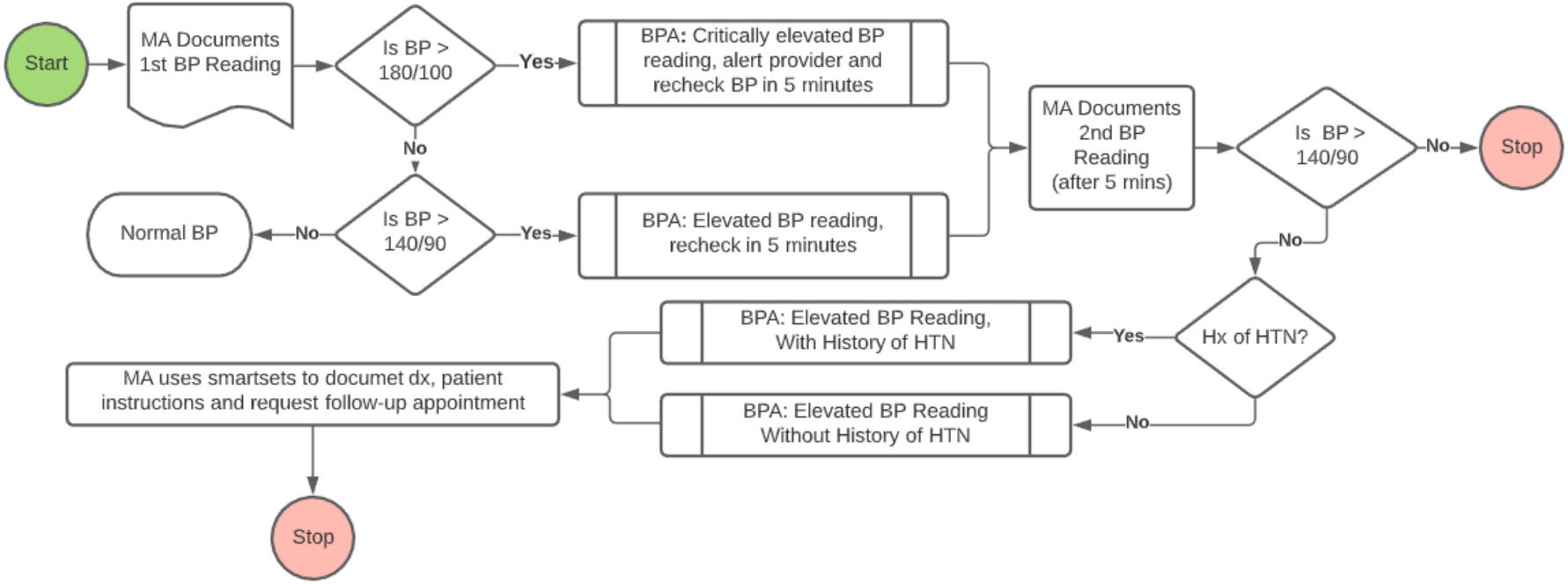




WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Automation Works

Automated EHR Elevated BP Best Practice Alert Algorithm



Automating workflow helped to quickly standardize and spread workflow across the organization

WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Changes We Tested

What Worked and What Didn't Work

Change Idea Tested	Summary of PDSAs	Adopted, Adapted, Abandon?
BP Education	Promote patient understanding of desired BP range and provide in-room healthy lifestyle education: 1. Attach laminated card for BP ranges (English and Spanish) to Vital Signs machine. 2. Laminate controlling blood pressure / healthy lifestyle education (English and Spanish) to be kept in each exam room. 3. MA to provide laminated education to patients with blood pressure elevation after rooming for patient to read while waiting for the provider. 4. Automate Healthy lifestyle education to print on discharge instructions	Partially adopted
Blood Pressure optimum standard workflow	Best workflow for accurately checking BP 1. Identify the best timing for checking BP. 2. Peer observations for proper technique.	Postponed due to pandemic
Best Practice Advisory	Optimize blood pressure rechecking by building a system-wide EMR alert. 1. Alert fires when MA enters a blood pressure BP >140/90 with recommendation to recheck in 5 min. 2. Second alert fires when MA enters a second BP reading >140/90. Alerts for both MA and Provider with links to complete follow-up interventions.	Adopted
SMBP	Modify Telehealth workflow for patient self monitored blood pressure. Current workflow has not been standardized. A high-level SMPA map has been created with a plan to optimize the workflow going forward.	In -Progress
Improve equitable access to BP Monitoring Kits	Begin tracking the number of HTN patients that have a BP kit and provide kits to xx% of patients without insurance coverage . . .200 blood pressure test kits were purchased for patients without insurance coverage.	In-Progress

How Did We Know the Changes Were An Improvement?

What We Measured

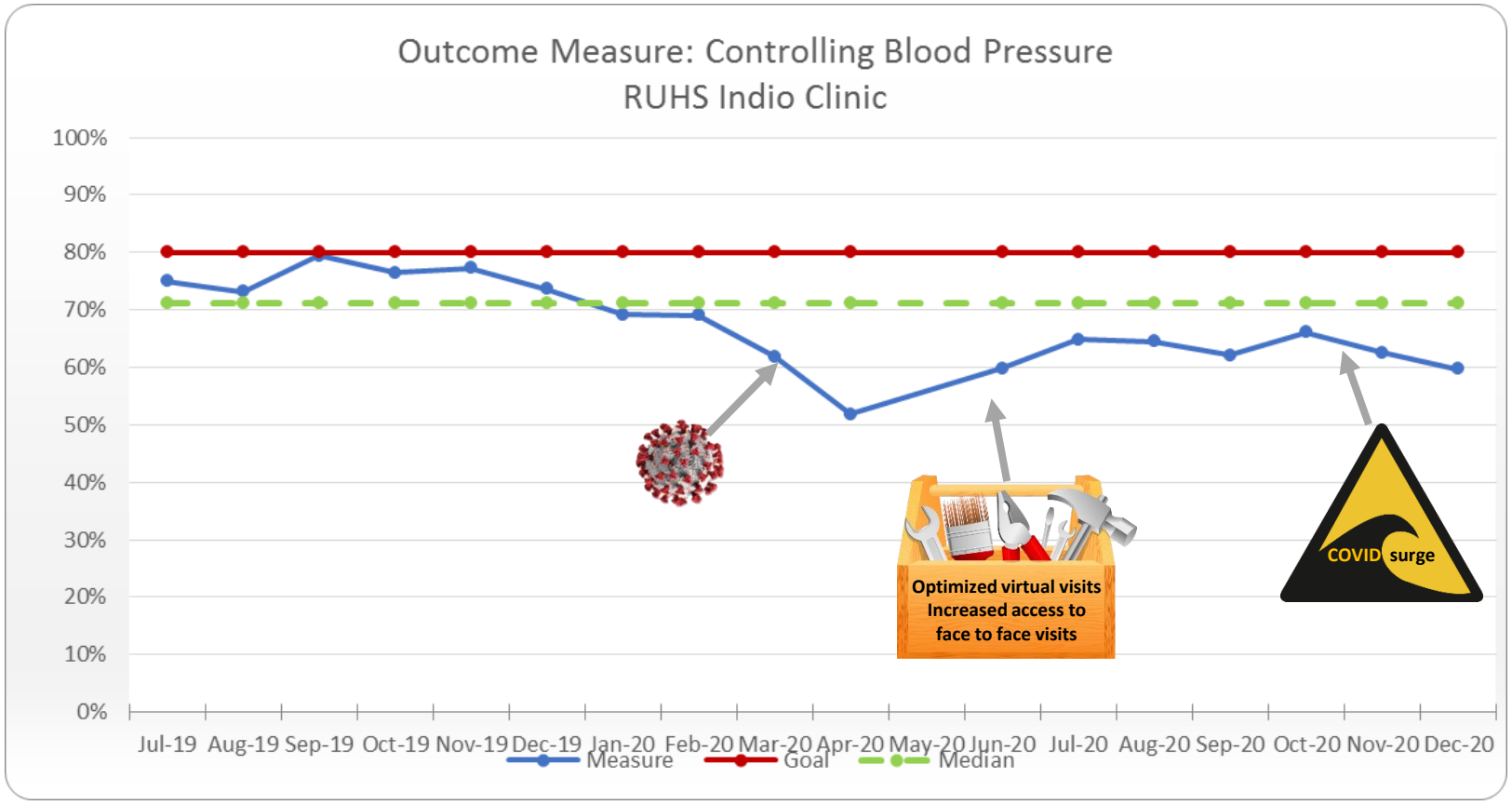
Measures Set

Measure Type/Name	Description/ Specifications	Baseline %	Target %
Outcome (Directly related to the aim):			
Blood Pressure Control	Percentage of patients age 18-85 with a diagnosis of HTN whose blood pressure is adequately controlled (< 140/90 mmHg) during the measurement period.	**74%** 562/761 (QTR 2 2019)	80%
Process (Steps to achieve outcome):			
Blood Pressure Recheck	The number of HTN patients seen per month with a BP measurement >140/90 who had a BP recheck done in 5 min.	70% 115/165 Jan 2020	90%
HTN Combo Medication	The number of HTN patients prescribed a combination medications	4% 7/163	9%
Empanelment	The continuity rate of the Indio clinic – patients being seen by their empaneled provider.	76% 796/1044 (Jan 2019)	70% All clinics

How Did We Know the Changes Were An Improvement?

Results: Run Charts

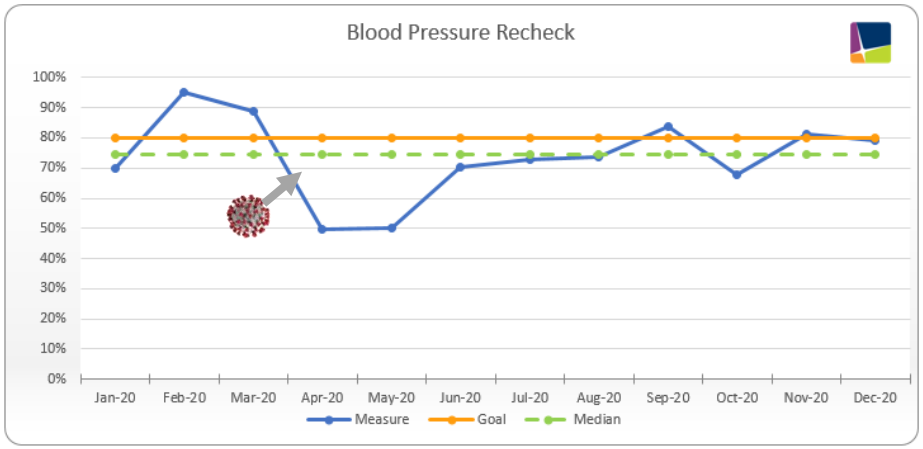
Outcome

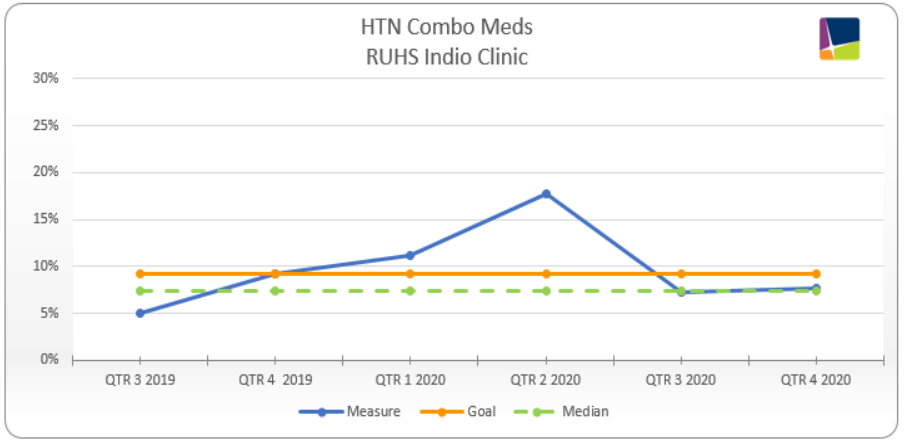


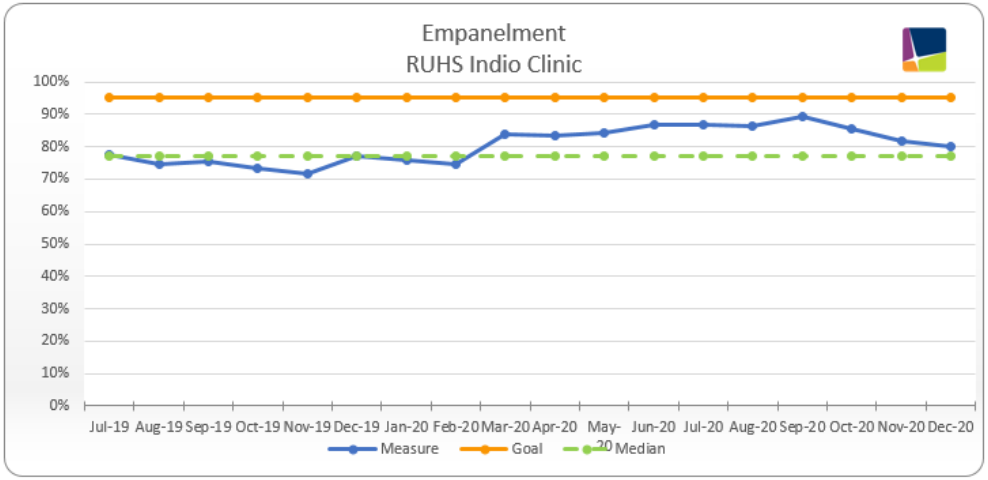
How Did We Know the Changes Were An Improvement?

Results: Run Charts

Process



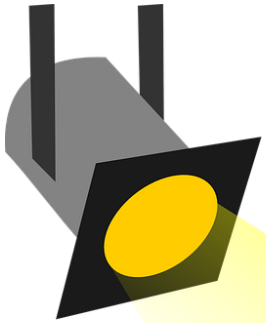




How Did We Know the Changes Were An Improvement?

Here's What We Learned

Bright Spots/Accomplishments



We learned that the process of change must be well though-out. Creating standard work was complicated, however building change into the EMR was more effective. Staff at RUHS embraced the blood pressure best practice alerts at a much higher rate that has been seen with other BPA's. Usual adoption rate is approximately 5%. This BPA has shown and average acknowledgement rate of 54%.

The pandemic allowed for adoption of new innovations and workflows to support patient care. Epic chat and TEAMS chat. RUHS is communicating with primary care teams for BP control in these methods

RUHS was surprised to learn that after communicating with our Medi-Cal Managed Care Plan, Inland Empire Health Plan (IEHP), regarding authorization of Bluetooth enabled BP kits for a pilot project, IEHP reached back out to us was interested in collaborating on piloting Bluetooth enabled BP kits. RUHS has now met twice with a project group to begin planning.

IEHP® A Public Entity
Inland Empire Health Plan

"I have been talking to my team about our discussion last week concerning Remote Patient Monitoring for hypertension. We are excited about moving forward with a pilot and would love to do this together."

- Karen Gaio Hansberger, M.D.
- IEHP Chief Medical Officer

How Did We Know the Changes Were An Improvement?

Here's What We Learned

The Challenge of the COVID-19 Pandemic

Due to the Covid pandemic, TC3 efforts at our pilot clinic site was disrupted as RUHS operationalized its' response to the pandemic. Face to Face visits were suspended for patient safety and in-person visits, where blood pressure workflow occurred, dropped dramatically as RUHS transitioned to virtual visits. Clinic staff were deployed to Covid testing sites and quality staff were re-assigned to test results processing and communication. Decentralization of care teams presented communication challenges between teams members working remotely. Standard rooming processes were lost as initial virtual visits were conducted strictly with the provider using templates which did not have quality tools embedded. Data sharing was also impacted as meetings were suspended and focus placed on immediate patient care.

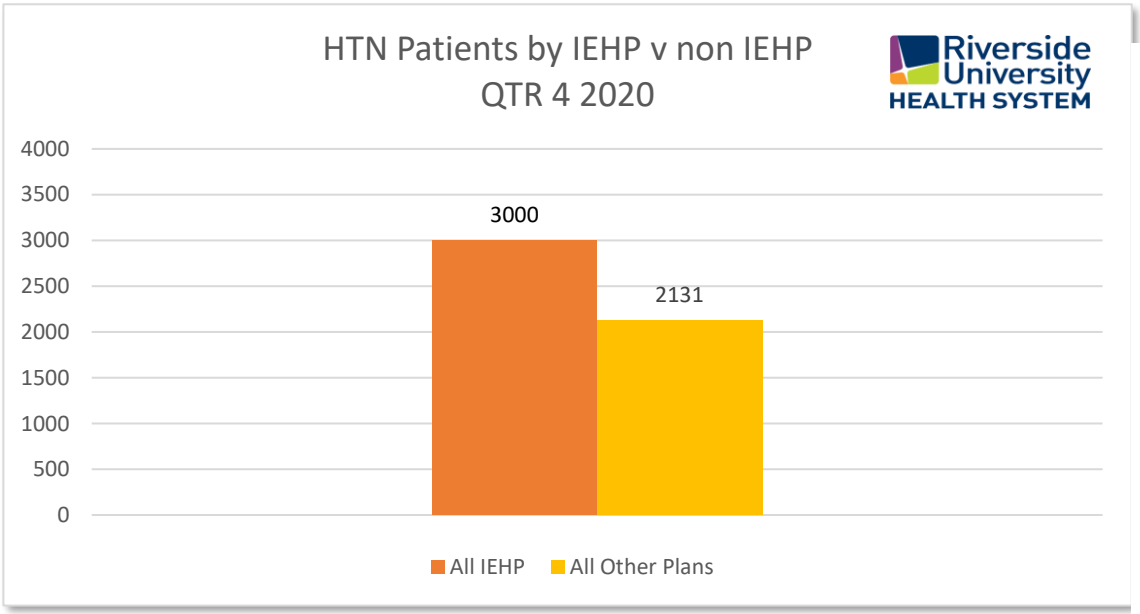
Overall Challenges

Challenge	How We Overcame/Resolution
Workforce was re-allocated to COVID testing sites	Modify workflow to accommodate reduction in staffing.
Decentralization of provider care teams presented communication challenges between teams members working remotely	Telephone communication replaced in-person-handoff. EPIC chat was widely adopted and continue to be used to communicate between team members. TEAMs chat was also adopted for additional real time chat options for team members (such as ACCs) that do not have access to EPIC Chat.
Reduced in-person visits created barriers to physiologic measurements and monitoring	Switch focus to SMBP
Standard rooming workflow and quality screenings were disrupted.	Virtual rooming workflows had to be developed to mirror office visit workflows.
EHR tools not available.	Standardized telehealth EHR note templates adapted to mirror office visit templates.
Quality teams re-deployed to support and pandemic response COVID surge. Non-essential meetings were canceled.	Work off-line, continue with limited staff, change strategies Some quality items were not addressed.

Improving Health Equity

Here's What We Learned

Blood pressure test kits are a covered benefit for IEHP Managed Medical Patients but are not covered for patients with other benefit plans or have no benefit plan.



RUHS will use grant funds to purchase blood pressure test kits to ensure equitable access to patient self blood pressure monitoring.

What's Next for PHASE/TC3?

Here's How We Will Continue the Work

SPREAD

By December 31,2021, RUHS will implement standard workflow for blood pressure measurement during an office visit and incorporate it into virtual visit workflows with SMBP. The key changes are:

- Ensuring that blood pressure >140/90 are re-checked after 5 minutes.
- Patients know the best techniques for blood pressure measurement.
- Blood pressure test kits will be available to patients without coverage at all clinic sits.

SUSTAINABILITY

RUHS will track blood pressure control for patients who are seen virtually and participating in SMBP. RUHS will also continue to monitor blood pressure re-checking and BPA acknowledgement for patients seen in clinic.

THE DESIRED FUTURE

- By December 31, 2021 RUHS will return to its baseline level of blood pressure control at 74%, achieve 95% performance for blood pressure rechecking and BPA acknowledgement, and optimize patient Self Measured Blood Pressure **SMBP** workflow.

- This is not currently possible because pandemics make it hard to do traditional process improvement
    - Focus on emergency operations
    - Patient self management challenges
    - Variations in clinic workflow
    - Remote BP monitoring is limited to patients who have IEHP coverage for home BP test kit.
    - Bluetooth interoperability does not exist at RUHS and build requires resources that are focused elsewhere
    - Desired Epic tools are not yet available

- What We have learned from our PHASE/TC3 focus this year that may serve us in achieving the desired future:
    - Automating workflow as much as possible has been a effective way to standardize and spread change.
    - RUHS would like to continue to leverage the EHR tools to reinforce workflow standardization in blood pressure control.
    - Learning from high performers
    - Learning from data
    - High Best Practice Alert adoption rate
    - More active prescribing of BP kits for IEHP patients

What's Next for PHASE/TC3?

Here's How We Will Continue the Work

THE DESIRED FUTURE

- In order to support achieving our desired future, we plan to:
  - Continue to engage front line staff and patients for input on workflow
  - Promote staff recognition/quality awards for performance improvement
  - Develop EHR tools to support patient self management of chronic illness – MyChart Care Companion for BP control
  - WPHS - to look at other factors that may impact ability to control BP
  - Empanelment/Continuity impact on BP control

- What else is possible?
  - Patients more engaged in managing their own chronic illness/blood pressure
  - Expand EHR tools for blood pressure management is a available tool for patients with HTN
  - Linking of the WPHS and SDOH using REAL/SOGI data to identify areas of disparity that may impact HTN
  - Greater engagement with health home teams and health coaches for care management and patient navigation
  - Further expansion of virtual visits to include nurse visits for remote SMBP and patient education
  - Spreading BP workflows in specialty care to refer back to primary care

- What are the consequences of *not* doing the above to achieve the desired future?
  - Non-sustainable BP control
  - Lack of standard workflow
  - Lack of understanding regarding patient barriers to achieving BP goal
  - Lack of focus on equity

- What we need from our leaders to support achieving our desired future?
  - Administrative support for provider team recognition
  - Create dedicated time/forum to recognize providers.– 2 hours quarterly.
  - Financial support to purchase awards/incentives.
  - 8 hours per quarter to coordinate provider recognition
  - Staff support
  - Dedicated time (1 hour per month) to test new workflows and participate in trainings
  - Operational buy-in to help monitor and implement standard workflow/competencies 30 minute per week to review Blood pressure workflow during clinic leadership huddle
  - Data analyst support - to share reports consistently on provider/care team performance
  - 4 hours per week for data analysis and report development