Lessons Learned from Hypertension Program in Kaiser Permanente Northern California

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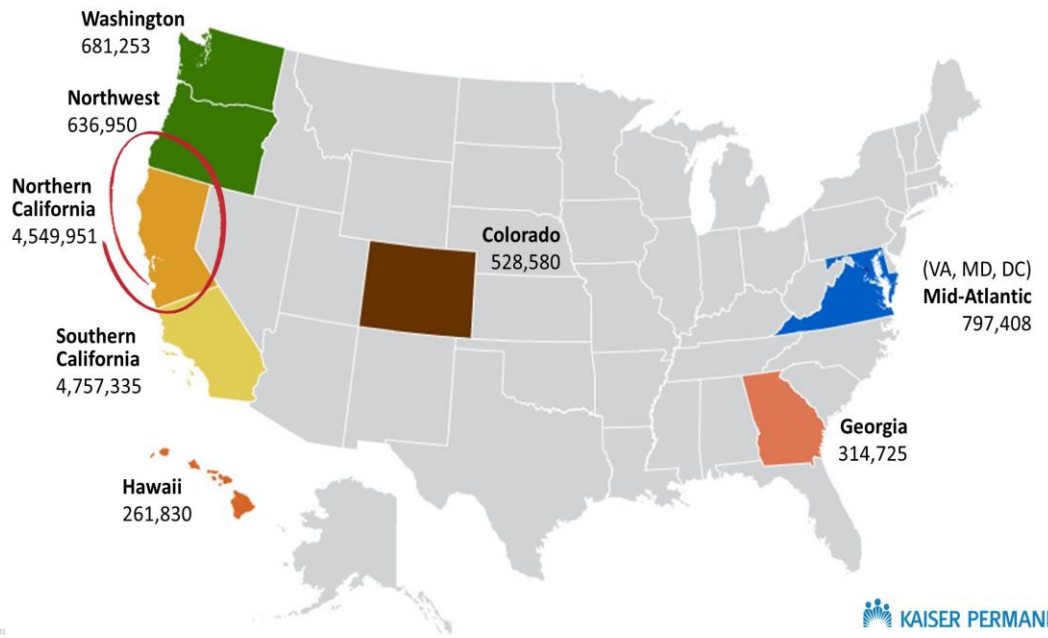
Kaiser Permanente Provides Health Care for Over 12 Million People



 As of Nov 2021

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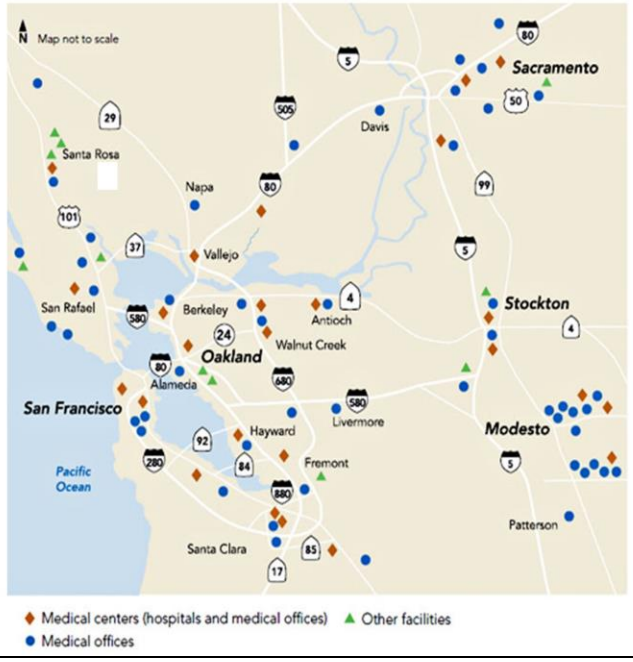
Kaiser Permanente Northern California (KPNC)

Members
4.5M

Hospitals
21

Physicians
9,530

Medical offices
268



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KPNC Hypertension Program – Initiated in 2000

Key Elements to Success

Hypertension Registry
Validated and comprehensive

Clinic Level Performance Feedback
Facilitates operational and system-level change, transparent, and widely visible

Treatment Algorithm
Based on evidence-based guidelines, simple and implementable

Medical assistant visits for BP measurements
Appropriate use of ancillary staff skills and reduced barriers to patients

Single-pill combination therapy
Increased efficiency and increased adherence

Jaffe et al. *JAMA.* 2013;310(7):699-705

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System-wide Hypertension Registry

- Elements used for identification
  - Outpatient diagnostic codes on a quarterly basis
  - Pharmaceutical utilization data
  - Hospitalization records
- Selection criteria: Two HTN diagnosis in 24 months
- Clinical exclusions: frailty, hospice, SNF, pregnancy, ESRD
- Validated accuracy through random chart reviews
- Registry grown from 350,000 to more than 650,000 individuals
- Identified prevalence of hypertension increased from 15% to 27% of adult membership

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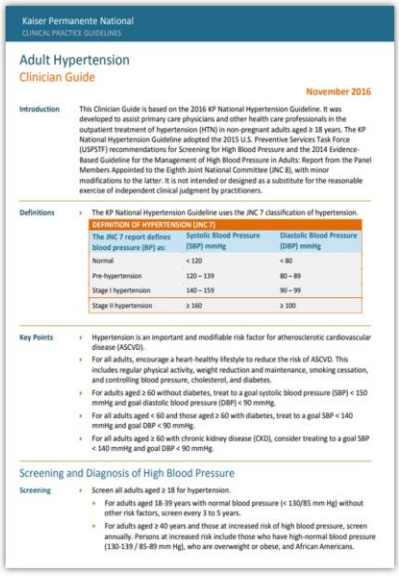
Evidence-based HTN guidelines

- System-wide evidence-based guidelines updated every 2 years
- Diverse guideline development team: primary care, specialty physicians (cardiologists, nephrologists, endocrinologists), pharmacists and evidence-based methodologists.
- Simplified drug treatment algorithm
- Aligned with other organizational guidelines to ensure consistent educational messages
- Distributed in many forms



Kaiser Permanente National
CLINICAL PRACTICE GUIDELINES

Adult Hypertension
Clinician Guide

November 2016

Introduction

This Clinician Guide is based on the 2016 KP National Hypertension Guideline. It was developed to assist primary care physicians and other health care professionals in the outpatient treatment of hypertension (HTN) in non-pregnant adults aged ≥ 18 years. The KP National Hypertension Guideline adopted the 2015 U.S. Preventive Services Task Force (USPSTF) recommendations for Screening for High Blood Pressure and the 2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults: Report from the Panel Members Appointed to the Eighth Joint National Committee (JNC 8), with minor modifications to the latter. It is not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by practitioners.

Definitions

- The KP National Hypertension Guideline uses the JNC 7 classification of hypertension.

DEFINITION OF HYPERTENSION (JNC7)

The JNC 7 report defines blood pressure (BP) as:	Systolic Blood Pressure (SBP) mmHg	Diastolic Blood Pressure (DBP) mmHg
Normal	< 120	< 80
Pre-hypertension	120 – 139	80 – 89
Stage I hypertension	140 – 159	90 – 99
Stage II hypertension	≥ 160	≥ 100

Key Points

- Hypertension is an important and modifiable risk factor for atherosclerotic cardiovascular disease (ASCVD).
- For all adults, encourage a heart-healthy lifestyle to reduce the risk of ASCVD. This includes regular physical activity, weight reduction and maintenance, smoking cessation, and controlling blood pressure, cholesterol, and diabetes.
- For adults aged ≥ 60 without diabetes, treat to a goal systolic blood pressure (SBP) < 150 mmHg and goal diastolic blood pressure (DBP) < 90 mmHg.
- For all adults aged < 60 and those aged ≥ 60 with diabetes, treat to a goal SBP < 140 mmHg and goal DBP < 90 mmHg.
- For all adults aged ≥ 60 with chronic kidney disease (CKD), consider treating to a goal SBP < 140 mmHg and goal DBP < 90 mmHg.

Screening and Diagnosis of High Blood Pressure

Screening

- Screen all adults aged ≥ 18 for hypertension.
  - For adults aged 18-39 years with normal blood pressure (< 130/85 mm Hg) without other risk factors, screen every 3 to 5 years.
  - For adults aged ≥ 40 years and those at increased risk of high blood pressure, screen annually. Persons at increased risk include those who have high-normal blood pressure (130-139 / 85-89 mm Hg), who are overweight or obese, and African Americans.

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Quality Performance Metrics

- In 2001, internal HTN control reports developed for quality improvement.
- Outpatient BP values obtained from ambulatory setting, excludes ED, procedures, inpatient.
- Measures based on same inclusion/exclusion criteria as NCQA/HEDIS
- Initially a "manual" registry until KPNC's adoption of an electronic health record in 2008
- Identified best practices or innovations from high-performing medical centers and disseminated system-wide.
- Focus on performance improvement efforts at clinic-level and clinician-level.

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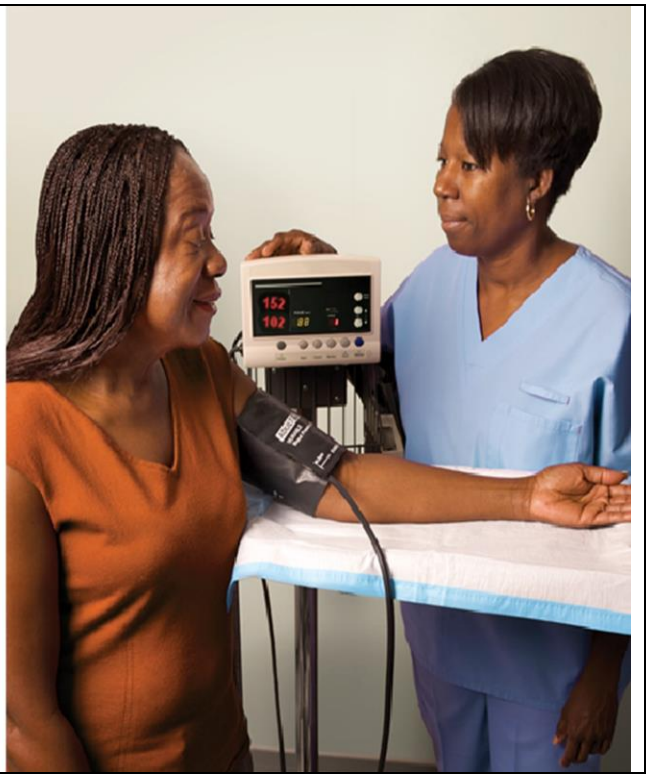
Medical Assistant BP Visits

- Created in 2007 as an alternative to traditional office visit with physician
- Visits schedule 2-4 weeks following a BP medication adjustment
- No co-payment
- MA trained using standardized materials and underwent periodic assessments.
- Measured BP forwarded to PCP and/or pharmacist for further action.



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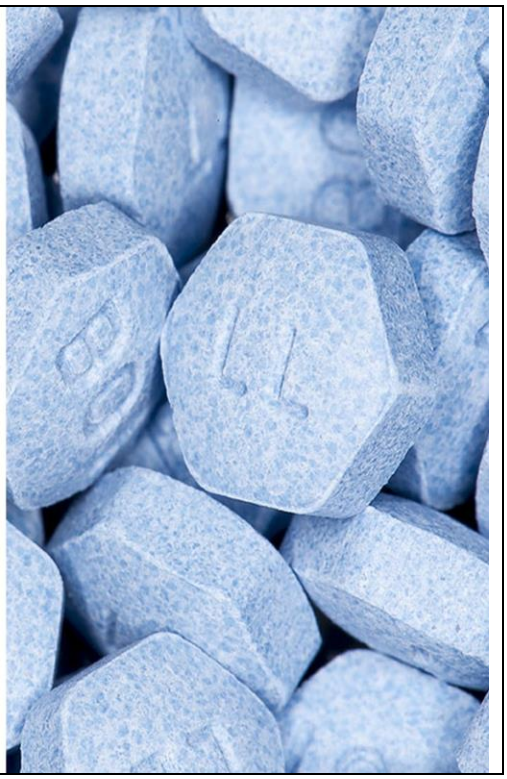
Single-pill Combination Therapy

- Incorporated into our evidence-based guidelines in 2005.
- Therapy promoted by both patient and physician education materials.
- Improved adherence
- Lower patient cost
- Improved blood pressure control



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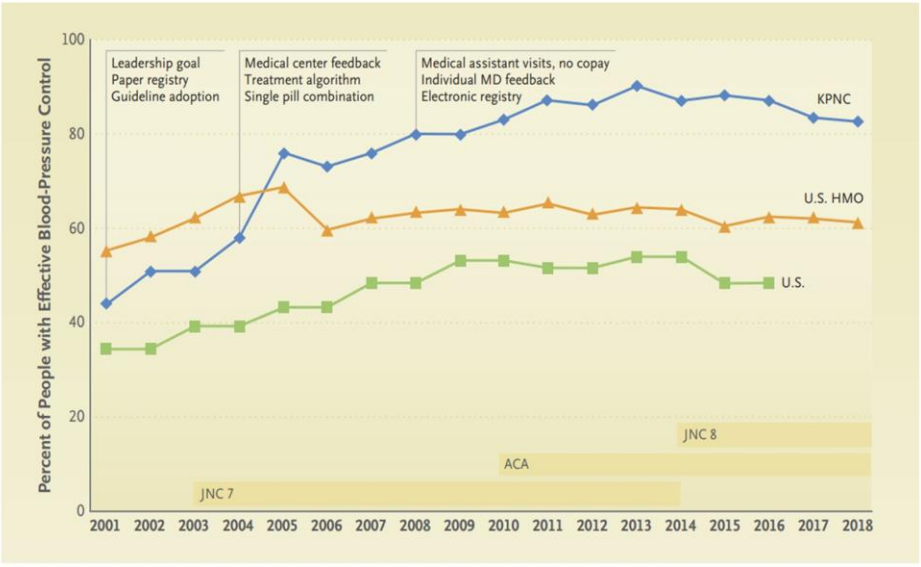
It Takes a Village to Control Blood Pressure at KPNC, 2001 - 2018



McGlynn. *N Engl J Med*. 2020;383(9):801-803.

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Telehealth, Lifestyle Coaching and Future Opportunities

- COVID-19 has increased virtual care.
- Home BPs accepted/encouraged.
- Increased patient and provider training about new options for BP.
- New workflows and tech tools to support home BPs.
- Remote options may be key to younger, busy patients' engagement.
- Culturally appropriate lifestyle coaching was better than usual care in controlling BP among Black patients with persistently high BP.

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Thank you!

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