


The Role of Public Health Nursing in Community Team-Based Care for Hypertension Management



Stacy Webb, RN
Heart Disease and Stroke Prevention Section Chief
&
Appathurai Balamurugan, MD, MPH
Medical Director/State Chronic Disease Director
Associate Director of Science
Chronic Disease Branch/Center for Health Advancement
Arkansas Department of Health

ARKANSAS DEPARTMENT OF HEALTH

Hypertension in Arkansas

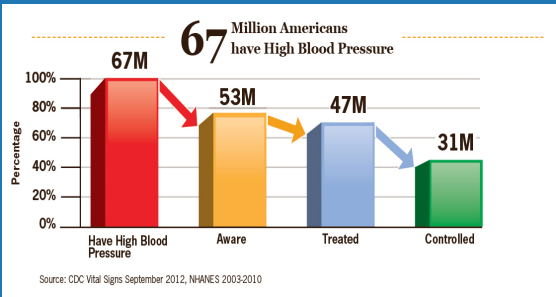
- ❑ Arkansas ranks # 1 among states with the highest heart attack deaths and # 2 among states with the highest stroke deaths.
- ❑ According to the 2014 BRFSS survey, 39% of Arkansans age 18 and older have self-reported hypertension, another third are undiagnosed.
- ❑ Arkansas death rates for hypertension-associated conditions is up to 33% higher than the US death rates.
- ❑ The direct medical costs associated with hypertension and hypertension-associated conditions was \$1.5 billion in 2010, of which, \$532 M is directly attributed to hypertension.

Source: Epidemiological Support for Strategic Planning for Reduction of Hypertension. Arkansas Department of Health, July 2012, 2nd Edition.

ARKANSAS DEPARTMENT OF HEALTH

CDC: Uncontrolled HTN is 'Public Enemy No. 2'

67M Million Americans have High Blood Pressure



Category	Number of Americans
Have High Blood Pressure	67M
Aware	53M
Treated	47M
Controlled	31M

Source: CDC Vital Signs September 2012, NHANES 2003-2010

ARKANSAS DEPARTMENT OF HEALTH

Undiagnosed HTN

- Total ADH patients in Greenway (Jan-Dec 2014) = 234,643
- Of these, patients with 2+ visits where BP was recorded = 79,427 (34%)
- Of these, patients with 2+ visits and had an elevated BP = 2,187
- Of these, patients with no HTN diagnosis = 1,365 (62%) had **Undiagnosed Hypertension (Hiding in plain sight)**

ARKANSAS DEPARTMENT OF HEALTH

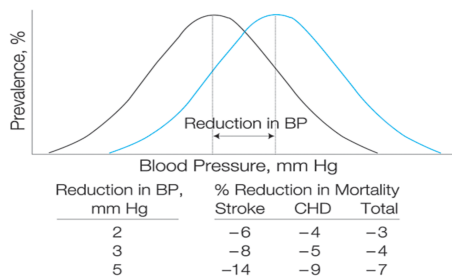
Uncontrolled HTN – Major causes

- Nonadherence to medications – up to 40-50%
- Nonadherence to lifestyle modification – up to 40-50%
- Suboptimal therapy – 5%
- Resistant Hypertension – 5 - 10%

Source: Viera AJ, Hinderliter AL. Evaluation and Management of the Patient with Difficult-to-Control or Resistant Hypertension. *Am Fam Physician*. May 15, 2009; Volume 79, Number 10:1613-1619.

ARKANSAS DEPARTMENT OF HEALTH

Small SBP Reductions Across the Population Can Save Many Lives



Whelton, PK, et al. *JAMA* 2002;288:1882. Stamler R, et al. *Hypertension* 1991;17:1-16

ARKANSAS DEPARTMENT OF HEALTH

What is Team-based care?

A Team-Based Care is an evidence-based model that comprises of the patient, patient's primary care provider, and another person such as a nurse, pharmacist, dietician, social worker, or a community health worker.

- The Guide to Community Preventive Services.

ARKANSAS DEPARTMENT OF HEALTH



ARKANSAS DEPARTMENT OF HEALTH

Traditional Medical Model vs. Team-Based Care Model

ARKANSAS DEPARTMENT OF HEALTH

Key Roles of Public Health Nurses in Prevention and Control of Hypertension

- Blood pressure screening and monitoring: build community members knowledge and awareness of screening and its impact on health.
- Care coordination: reduce fragmented care and provide greater follow-up.
- Counseling/coaching: guide community members to set and meet their own health goals.
- Data collection: provide a "snapshot" of the population affected by hypertension and help providers target interventions.
- Developing protocols and making referrals: ensure standard practices and determine patient and provider roles.
- Patient or provider education: inform patients about their blood pressure and how they can make lifestyle changes to prevent or improve hypertension.
- Self-management education: allow referral to peer-led, community-based programs that build self-efficacy and teach symptom-management skills.

Source: 2014 ASTHO

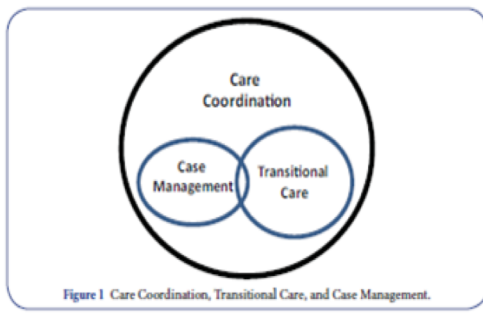
ARKANSAS DEPARTMENT OF HEALTH

ADH Hypertension Strategy #5

- Expand partnerships to spread and sustain team-based care for hypertension management in Arkansas communities

ARKANSAS DEPARTMENT OF HEALTH

The Role of Care Coordination in Improving Quality and Safety 5

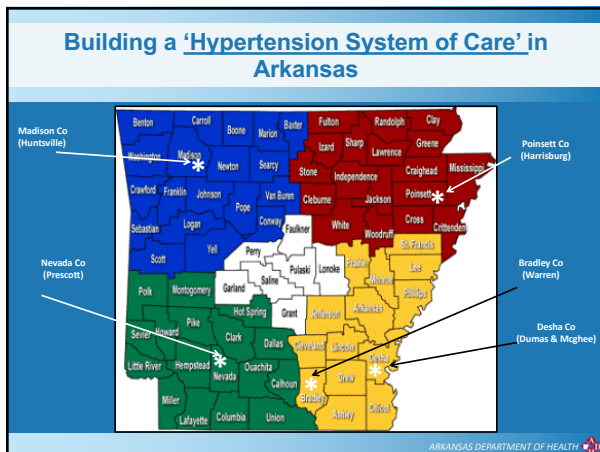
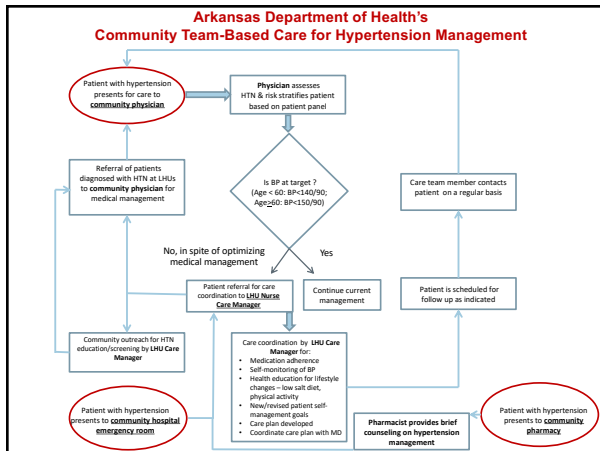


ARKANSAS DEPARTMENT OF HEALTH

Cost savings

- Cost saved by avoiding one coronary cath for acute myocardial infarction is about \$11,292
- Cost saved by averting a bypass graft is about \$18,298
- Cost saved by averting an acute stroke is \$9,975, not including the cost of long term care
- Cost saved by preventing one hemodialysis for renal failure is \$ 1 M over lifetime

ARKANSAS DEPARTMENT OF HEALTH



Patients followed up Community Team-Based Care for Hypertension Management at ADH LHU's (2015-17)

Million Hearts Target	Data description	Numbers of Patients Served
Patients Following-Up on Referral	Numerator for Patients Followed-Up (Total no. of patients who followed up with LHU HTN Care Managers for one or more visits)	327 (45.0%)
Number of return visits for hypertension care management	Range = 4-22 visits per patient	10 (Median number of visits)
Patients Adhering to Treatment Plan	Numerator for Patients Adhering (No. of patients adherent to medication from among those who followed up with LHU HTN Care Managers)	262 (98.9%)
Patients with Reduced BP	Numerator for Patients with Reduced BP (No. of patients with reduced SBP and DBP from among those who received ≥2 episodes of care from LHU HTN Care Managers) (Denominator = 198)	40 (20.2%)
Patients with Hypertension Under Control	Numerator for Patients with Controlled SBP (No. of patients with controlled SBP and diastolic from among those who received ≥2 episodes of care from LHU HTN Care Managers and were uncontrolled for SBP at their first visit)	24 (12.1%)

ARKANSAS DEPARTMENT OF HEALTH

Summary

- Hypertension is a major health concern in Arkansas and with the prevalence reaching epidemic proportions, the role of public health nursing in community team-based care for HTN management in our underserved rural communities is imperative.
- Diagnosing those undiagnosed with hypertension through our LHU's is a major public health concern
- Addressing medication adherence and lifestyle modification could help mitigate the burden due to uncontrolled hypertension
- Public Health Nurses role in Community Team-Based Care is high risk case management ,care coordination, self management, transitional care.
- Community TBC is not a panacea, but can serve as an option for underserved communities in Arkansas; and a vital between Primary Care and Public Health in the State.

ARKANSAS DEPARTMENT OF HEALTH