Translating Hypertension Research to Improve Blood Pressure Control in Rural Colorado

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Abstract: In this project, the academic researchers will work with members of the High Plains Research Network Community Advisory Council (HPRN CAC) and local family physicians participating in the High Plains Research Network to improve the diagnosis and treatment of hypertension (HTN) in a rural eastern Colorado community. The HPRN CAC will help researchers and the local practice develop high impact messages that will raise community awareness about the importance of hypertension screening and blood pressure control. To improve blood pressure management in our collaborating Eastern Colorado Family medicine practice we will work with the practice to set up a home blood pressure monitoring program based on the successful Achieving Cardiovascular Excellence in Colorado (A CARE) program. Protocol based management of office blood pressure results has been shown to improve blood pressure control in the Simplified Therapeutic Intervention to Control Hypertension (STITCH) trial. We will work with our collaborating practice to translate this research to develop practical protocols for nurse follow up and management of home blood pressure monitoring results. Since it has been estimated that only 50-70% of patients with high blood pressure adhere to recommended antihypertensive medications regimes; we will also adapt and use validated adherence questions in our follow up protocol. Desired Outcomes for this project include:

1) Increasing the number of persons screened for high blood pressure in the target community and increasing community awareness of the importance of hypertension control.

2) Increasing the number of patients with high blood pressure in our target practice who are doing home blood pressure monitoring by enrolling 50 patients in the HBPM program.

3) Improving medication adherence in enrolled patients through the use of HBPM and by formally assessing medication adherence when patients report home blood pressure monitoring results.

4) Improving the percentage of patients in our collaborating practice who achieve target systolic and diastolic blood pressures by translating proven hypertension management protocols for use in our home blood pressure monitoring program.