Blood pressure (BP) measurement in the clinical office, while the main strategy for diagnosing hypertension, is fraught with limitations. The phenotype of elevated BP in the office with non-elevated BP outside the office, deemed white-coat hypertension, is well-recognized. The opposite scenario, termed masked hypertension, is much less known and rarely addressed clinically, even though it is an extremely common phenotype conferring substantial cardiovascular risk. In this seminar, Dr. Viera will share some of his research exploring efforts to develop a feasible strategy to detect this form of hypertension.