Background
The tremendous mortality due to cardiovascular disease (CVD) can largely be attributed to the combination of highly prevalent, modifiable, and partly interrelated risk factors, which include hypertension (HTN), dyslipidemia (DYS), smoking, obesity, and a sedentary lifestyle. Clustering of cardiovascular (CV) risk factors has repeatedly been observed in population studies. Individuals with elevated cholesterol levels have a higher than expected prevalence of HTN and vice versa. A recent analysis in a managed care population demonstrated the co-occurrence of HTN, DYS, and diabetes mellitus (DM) in patients, suggesting that disease management programs should use a combined rather than an individual approach to reduce CV risk factors.

Aims
The epidemiological study DETECT® (Diabetes-Cardiovascular Risk Evaluation: Targets and Essential Data for Commitment of Treatment) was launched to identify the reasons, the extent and the short-term consequences of unmet needs in patients with high CV risk in a representative sample in primary care in Germany. This evaluation focused on the frequency of hypertension and dyslipidemia and their co-occurrence, the extent and quality of treatment and prescribed medications.

Methods
Design: DETECT is a large multistage cross-sectional study of 55,518 unselected consecutive patients (59% women and 41% men; over 18 years, mean age 53.9 years) in 3,188 primary care offices in Germany (73% general medicine and 27% internal medicine) with a prospective 12-month component in a random subset of 7,519 patients, characterized additionally by an extensive standardized laboratory program with focus on CV risk assessments. Patients' self-assessments and physicians' assessments of each patient were obtained. The data reported are based exclusively on the laboratory subset of patients and are not yet adjusted to non-response and sampling design effects. Further details are available at http://www.detect-studie.de.

Blood pressure measurements, CHD risk categories, HTN and DYS definition: Blood pressure measurements were performed according to the guidelines of the German Hypertension Society, HTN was determined, according to the guidelines of the JNC 7, as blood pressure values ≥ 140/90 mmHg or being on antihypertensive medication. CHD risk categories and subsequent LDL-C goals were determined according to the National Cholesterol Education Program (NCEP) ATP III Guidelines. Ten-year risk was calculated according to the Framingham risk score. DYS was determined as LDL-C levels > as determined.

Figure 3: Lipid-lowering and antihypertensive drug classes in patients with both diseases (%)

Summary
The frequencies of HTN, DYS and both diseases in combination as defined by the NCEP ATP III and the JNC 7 guidelines in a primary care sample were 82.4%, 49.5%, and 45.4%, respectively. 55.1% of the hypertensive patients and only 19.5% of the dyslipidemic patients were treated with antihypertensive drugs and lipid-lowering drugs. Treatment rates in patients with both diseases were only slightly better. In this group 66.3% of the patients were treated with antihypertensive drugs and 20.4% with lipid-lowering drugs. Only 17.1% were treated with both (see Figure 2).