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## Sustainability of the effects of a community-based multiple risk factor intervention in a high risk black population.

CN Wiley, LR Yanek, D Vaidya, TF Moy, DM Levine, DM Becker, Johns Hopkins University, Baltimore, MD

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**Background:** Coronary heart disease (CHD) risk factors in high risk people have been successfully modified in short-term community trials, but long term sustainability of risk factor changes in post-trial participants is often not reported.

**Objective:** To determine the 5-year sustainability of previously observed benefits of a 1-year community health worker/nurse practitioner assisted risk reduction intervention (CBC) compared with enhanced usual care (EUC) where providers were offered feedback and individualized recommendations for patients. At 1 year, the CBC showed a significantly greater percentage achieving goal levels of blood pressure (BP) and LDL cholesterol (LDL-C) compared to the EUC group.

**Methods:** Black 30- to 59- year-old unaffected siblings of probands with CHD aged <60 years were screened; those with BP $\geq$ 140/90 or LDL-C  $\geq$ 130mg/dl were randomized to one year of CBC or EUC. LDL-C, systolic and diastolic BP, and use of lipid-lowering and antihypertensive medications were assessed at baseline, 1 year, and 5 years. For this study of sustainability, comparisons were made within and between groups for the percent at ATP-II and JNC VI goal levels for LDL-C and BP between baseline and 5 years.

**Results:** At 5 years, both groups showed significant improvements in the percentage meeting goal levels, and no significant between group differences persisted except for in the use of lipid-lowering agents in the CBC group (See Table).

**Conclusions:** These data suggest that over 5 years both groups sustained improvement over baseline. Providers in the EUC group who received feedback and recommendations improved care more slowly, yet ultimately achieved nearly the same improvements as seen in the community based care model. Thus, we conclude that the beneficial effects were sustainable within both groups, but the advantage of the community based care model did not persist.

Table: Risk factors by group at baseline and 5 years of follow-up

	CBC (N=155)		Within p*	EUC (N=131)		Within p	Between p
	Base	5-yr	* $\chi^2$	Base	5-yr	* $\chi^2$	† ANOVA
% BP <140/90mm Hg	37	51	<.0001	44	55	0.01	0.51
% BP meds	35	52	p<.0001	32	49	<0.0001	0.71
% LDL-C <130mg/dl	40	58	p<.0001	39	54	<0.0001	0.38
% lipid-lowering meds	4	32	p<.0001	8	20	<0.0001	0.001