OBJECTIVES/SPECIFIC AIMS: To translate a behavioral theory-informed, evidence-based, face-to-face health education program into an mHealth lifestyle intervention for African-Americans (AAs). METHODS/STUDY POPULATION: This mixed methods study consisted of 4 phases, using an iterative development process to intervention design with the AA community. In Phase 1, we held focus groups with AA community members and church partners (n=23) to gain insight regarding the needs and preferences of potential app end users. In Phase 2, the interdisciplinary research team synthesized input from Phase 1 for preliminary app design and content development. Phase 3 consisted of a sequential 3-meeting series with the church partners (n=13) for iterative app prototyping (assessment, cultural tailoring, final review). Phase 4 was a single group pilot study among AA church congregants (n=50) to assess app acceptability, usability, and satisfaction. RESULTS/ANTICIPATED RESULTS: Phase 1 focus groups indicated preferences for general and health related apps: multifunctional; high-quality graphics/visuals; evidence-based, yet simple health information; and social networking capability. Phase 2 integrated these preferences into the preliminary app prototype. Feedback from Phase 3 was used to refine the FAITH! App prototype for pilot testing. Phase 4 pilot testing indicated high acceptability, usability, and satisfaction of the FAITH! App. DISCUSSION/SIGNIFICANCE OF IMPACT: This study illustrates the process of using formative and CBPR approaches to design a culturally relevant, mHealth lifestyle intervention to address CV health disparities within the AA community. Given the positive perceptions of the app, our study supports the use of an iterative development process by others interested in implementing an mHealth lifestyle intervention for racial/ethnic minority communities.