Figure S1. Hypothesized Path Diagram of the Mediation Relationships of Interest and Covariates. The hypothesized total effect of being a Black American compared to a White American on walking speed (the total racial difference in walking speed) in those with relapsing remitting multiple sclerosis is the summation of the direct effect and the indirect effects ($\beta_{\text{Total Effect}} = \beta_{1''} + (\alpha_{2''} \times \beta_{2''}) + (\alpha_{3''} \times \beta_{3''}) + (\alpha_{4''} \times \beta_{4''})$), and these values are estimated from a set of structural equation models, simplified and written as:

1. $Y_{\text{Walking Speed}} = \beta_{0''} + [\beta_{1''} \times \text{Race}] + [\beta_{2''} \times \text{BMI}] + [\beta_{3''} \times \text{Hypertension}] + [\beta_{4''} \times \text{SES}] + [\beta_{1i''} \times (\text{sex, age..})] + \varepsilon_{1''}$;

2. $Y_{\text{BMI}} = \alpha_2 + [\alpha_{2''} \times \text{Race}] + [\beta_{2i''} \times (\text{sex, age..})] + \varepsilon_2$;

3. $Y_{\text{Hypertension}} = \alpha_3 + [\alpha_{3''} \times \text{Race}] + [\beta_{3i''} \times (\text{sex, age..})] + \varepsilon_3$; and 4. $Y_{\text{SES}} = \alpha_4 + [\alpha_{4''} \times \text{Race}] + [\beta_{4i''} \times (\text{sex, age..})] + \varepsilon_4$).
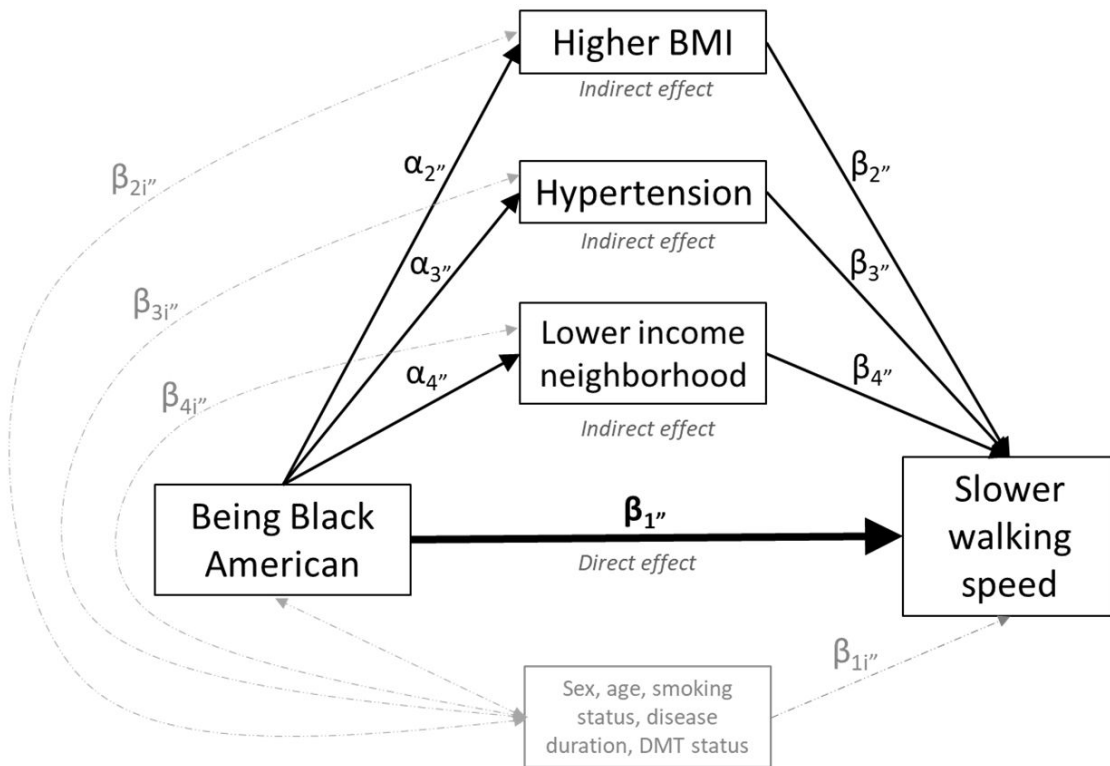
Figure S2. Directed Acyclic Graphs That Informed the Mediation Analysis
A. Illustrates the hypothesized causal relationships between being a Black American and ambulation in individuals with RRMS.
B. Key mediation relationships of interests are bold.
C. Since all patients were seen at a single tertiary institution, we can remove the node and all its edges, as we have controlled for its effect.
D. We highlight likely confounders and correlates of the mediation relationships of interest that will be adjusted for in the models, and we can also remove these nodes and connected edges.
E. We highlight mediators of interest that will be the focus of the models, and thus included in them; therefore, we can remove their nodes and edges from the path diagram.
F. We see that having accounted for mediators and other covariates, the relationship between being a Black American and ambulation is now de-confounded; therefore, the remaining nodes in the diagram do not need to be considered as covariates.
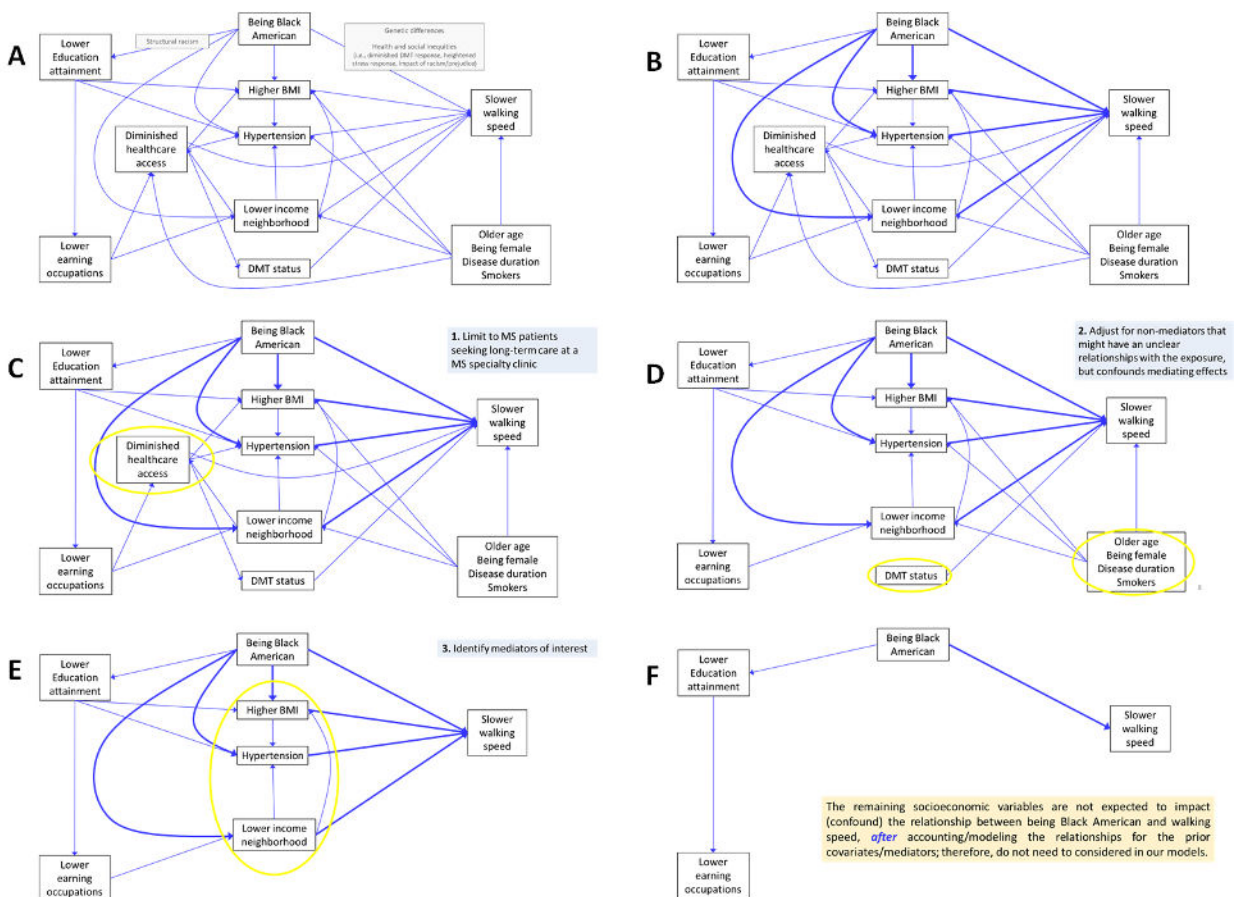
Figure S3. Longitudinal Growth in Timed 25-Foot Walk (T25FW)