

# Supplementary data:

## Appendix: Look AHEAD Research Group at Year 4

Updated 02/12/2014

### Clinical Sites

The Johns Hopkins Medical Institutions Frederick L. Brancati, MD, MHS<sup>1</sup>; Lee Swartz<sup>2</sup>; Lawrence Cheskin, MD<sup>3</sup>; Jeanne M. Clark, MD, MPH<sup>3</sup>; Kerry Stewart, EdD<sup>3</sup>; Richard Rubin, PhD<sup>3</sup>; Jean Arceci, RN; Suzanne Ball; Jeanne Charleston, RN; Danielle Diggins; Mia Johnson; Joyce Lambert; Kathy Michalski, RD; Dawn Jiggetts; Chanchai Sapun

Pennington Biomedical Research Center George A. Bray, MD<sup>1</sup>; Kristi Rau<sup>2</sup>; Allison Strate, RN<sup>2</sup>; Frank L. Greenway, MD<sup>3</sup>; Donna H. Ryan, MD<sup>3</sup>; Donald Williamson, PhD<sup>3</sup>; Brandi Armand, LPN; Jennifer Arceneaux; Amy Bachand, MA; Michelle Begnaud, LDN, RD, CDE; Betsy Berhard; Elizabeth Caderette; Barbara Cerniauskas, LDN, RD, CDE; David Creel, MA; Diane Crow; Crystal Duncan; Helen Guay, LDN, LPC, RD; Carolyn Johnson, Lisa Jones; Nancy Kora; Kelly LaFleur; Kim Landry; Missy Lingle; Jennifer Perault; Cindy Puckett; Mandy Shipp, RD; Marisa Smith; Elizabeth Tucker

The University of Alabama at Birmingham Cora E. Lewis, MD, MSPH<sup>1</sup>; Sheikilya Thomas MPH<sup>2</sup>; Monika Safford, MD<sup>3</sup>; Vicki DiLillo, PhD; Charlotte Bragg, MS, RD, LD; Amy Dobelstein; Stacey Gilbert, MPH; Stephen Glasser, MD<sup>3</sup>; Sara Hannum, MA; Anne Hubbell, MS; Jennifer Jones, MA; DeLavallade Lee; Ruth Luketic, MA, MBA, MPH; L. Christie Oden; Janet Raines, MS; Cathy Roche, RN, BSN; Janet Truman; Nita Webb, MA; Casey Azuero, MPH; Jane King, MLT; Andre Morgan

### Harvard Center

*Massachusetts General Hospital.* David M. Nathan, MD<sup>1</sup>; Enrico Cagliero, MD<sup>3</sup>; Kathryn Hayward, MD<sup>3</sup>; Heather Turgeon, RN, BS, CDE<sup>2</sup>; Linda Delahanty, MS, RD<sup>3</sup>; Ellen Anderson, MS, RD<sup>3</sup>; Laurie Bissett, MS, RD; Valerie Goldman, MS, RD; Virginia Harlan, MSW; Theresa Michel, DPT, DSc, CCS; Mary Larkin, RN; Christine Stevens, RN; Kylee Miller, BA; Jimmy Chen, BA; Karen Blumenthal, BA; Gail Winning, BA; Rita Tsay, RD; Helen Cyr, RD; Maria Pinto

*Joslin Diabetes Center:* Edward S. Horton, MD<sup>1</sup>; Sharon D. Jackson, MS, RD, CDE<sup>2</sup>; Osama Hamdy, MD, PhD<sup>3</sup>; A. Enrique Caballero, MD<sup>3</sup>; Sarah Bain, BS; Elizabeth Bovaird, BSN, RN; Barbara Fargnoli, MS, RD; Jeanne Spellman, BS, RD; Ann Goebel-Fabbri, PhD; Lori Lambert, MS, RD; Sarah Ledbury, MEd, RD; Maureen Malloy, BS; Kerry Ovalle, MS, RCEP, CDE

*Beth Israel Deaconess Medical Center:* George Blackburn, MD, PhD<sup>1</sup>; Christos Mantzoros, MD, DSc<sup>3</sup>; Ann McNamara, RN; Kristina Spellman, RD

University of Colorado Health Sciences Center James O. Hill, PhD<sup>1</sup>; Marsha Miller, MS, RD<sup>2</sup>; Brent Van Dorsten, PhD<sup>3</sup>; Judith Regensteiner, PhD<sup>3</sup>; Ligia Coelho, BS; Paulette Cohrs, RN, BSN; Susan Green; April Hamilton, BS, CCRC; Jere Hamilton, BA; Eugene

Leshchinskiy; Lindsey Munkwitz, BS; Loretta Rome, TRS; Terra Worley, BA; Kirstie Craul, RD,CDE; Sheila Smith, BS

Baylor College of Medicine John P. Foreyt, PhD<sup>1</sup>; Rebecca S. Reeves, DrPH, RD<sup>2</sup>; Henry Pownall, PhD<sup>3</sup>; Ashok Balasubramanyam, MBBS<sup>3</sup>; Peter Jones, MD<sup>3</sup>; Michele Burrington, RD, RN; Chu-Huang Chen, MD, PhD<sup>3</sup>; Allyson Clark Gardner, MS, RD; Molly Gee, MEd, RD; Sharon Griggs; Michelle Hamilton; Veronica Holley; Jayne Joseph, RD; Julieta Palencia, RN; Jennifer Schmidt; Carolyn White

The University of Tennessee Health Science Center

*University of Tennessee East.* Karen C. Johnson, MD, MPH<sup>1</sup>; Carolyn Gresham, RN<sup>2</sup>; Stephanie Connelly, MD, MPH<sup>3</sup>; Amy Brewer, RD, MS; Mace Coday, PhD; Lisa Jones, RN; Lynne Lichtermann, RN, BSN; Shirley Vosburg, RD, MPH; and J. Lee Taylor, MEd, MBA

*University of Tennessee Downtown.* Abbas E. Kitabchi, PhD, MD<sup>1</sup>; Ebenezer Nyenwe, MD<sup>3</sup>; Helen Lambeth, RN, BSN<sup>2</sup>; Amy Brewer, MS, RD, LDN; Debra Clark, LPN; Andrea Crisler, MT; Debra Force, MS, RD, LDN; Donna Green, RN; Robert Kores, PhD

University of Minnesota Robert W. Jeffery, PhD<sup>1</sup>; Carolyn Thorson, CCRP<sup>2</sup>; John P. Bantle, MD<sup>3</sup>; J. Bruce Redmon, MD<sup>3</sup>; Richard S. Crow, MD<sup>3</sup>; Scott Crow, MD<sup>3</sup>; Susan K Raatz, PhD, RD<sup>3</sup>; Kerrin Brelje, MPH, RD; Carolyn Campbell; Jeanne Carls, MEd; Tara Carmean-Mihm, BA; Julia Devonish, MS; Emily Finch, MA; Anna Fox, MA; Elizabeth Hoelscher, MPH, RD, CHES; La Donna James; Vicki A. Maddy, BS, RD; Therese Ockenden, RN; Birgitta I. Rice, MS, RPh, CHES; Tricia Skarphol, BS; Ann D. Tucker, BA; Mary Susan Voeller, BA; Cara Walcheck, BS, RD

St. Luke's Roosevelt Hospital Center Xavier Pi-Sunyer, MD<sup>1</sup>; Jennifer Patricio, MS<sup>2</sup>; Stanley Heshka, PhD<sup>3</sup>; Carmen Pal, MD<sup>3</sup>; Lynn Allen, MD; Lolline Chong, BS, RD; Marci Gluck, PhD; Diane Hirsch, RNC, MS, CDE; Mary Anne Holowaty, MS, CN; Michelle Horowitz, MS, RD; Nancy Rau, MS, RD, CDE; Dori Brill Steinberg, BS

University of Pennsylvania Thomas A. Wadden, PhD<sup>1</sup>; Barbara J Maschak-Carey, MSN, CDE<sup>2</sup>; Robert I. Berkowitz, MD<sup>3</sup>; Seth Braunstein, MD, PhD<sup>3</sup>; Gary Foster, PhD<sup>3</sup>; Henry Glick, PhD<sup>3</sup>; Shiriki Kumanyika, PhD, RD, MPH<sup>3</sup>; Stanley S. Schwartz, MD<sup>3</sup>; Michael Allen, RN; Yuliis Bell; Johanna Brock; Susan Brozena, MD; Ray Carvajal, MA; Helen Chomentowski; Canice Crerand, PhD; Renee Davenport; Andrea Diamond, MS, RD; Anthony Fabricatore, PhD; Lee Goldberg, MD; Louise Hesson, MSN, CRNP; Thomas Hudak, MS; Nayyar Iqbal, MD; LaShanda Jones-Corneille, PhD; Andrew Kao, MD; Robert Kuehnel, PhD; Patricia Lipschutz, MSN; Monica Mullen, RD, MPH

University of Pittsburgh John M. Jakicic, PhD<sup>1</sup>; David E. Kelley, MD<sup>1</sup>; Jacqueline Wesche-Thobaben, RN, BSN, CDE<sup>2</sup>; Lewis H. Kuller, MD, DrPH<sup>3</sup>; Andrea Kriska, PhD<sup>3</sup>; Amy D. Otto, PhD, RD, LDN<sup>3</sup>; Lin Ewing, PhD, RN<sup>3</sup>; Mary Korytkowski, MD<sup>3</sup>; Daniel Edmundowicz, MD<sup>3</sup>; Monica E. Yamamoto, DrPH, RD, FADA<sup>3</sup>; Rebecca Danchenko, BS; Barbara Elnyczky; David O. Garcia, MS; George A. Grove, MS; Patricia H. Harper, MS, RD, LDN; Susan Harrier, BS; Nicole L. Helbling, MS, RN; Diane Ives, MPH; Juliet Mancino, MS, RD, CDE, LDN; Anne Mathews, PhD, RD, LDN; Tracey Y. Murray, BS; Joan R. Ritchea; Susan Urda, BS, CTR; Donna L. Wolf, PhD

The Miriam Hospital/Brown Medical School Rena R. Wing, PhD<sup>1</sup>; Renee Bright, MS<sup>2</sup>; Vincent Pera, MD<sup>3</sup>; John Jakicic, PhD<sup>3</sup>; Deborah Tate, PhD<sup>3</sup>; Amy Gorin, PhD<sup>3</sup>; Kara Gallagher, PhD<sup>3</sup>; Amy Bach, PhD; Barbara Bancroft, RN, MS; Anna Bertorelli, MBA, RD; Richard Carey, BS; Tatum Charron, BS; Heather Chenot, MS; Kimberley Chula-Maguire, MS; Pamela Coward, MS, RD; Lisa Cronkite, BS; Julie Currin, MD; Maureen Daly, RN; Caitlin Egan, MS; Erica Ferguson, BS, RD; Linda Foss, MPH; Jennifer Gauvin, BS; Don Kieffer, PhD; Lauren Lessard, BS; Deborah Maier, MS; JP Massaro, BS; Tammy Monk, MS; Rob Nicholson, PhD; Erin Patterson, BS; Suzanne Phelan, PhD; Hollie Raynor, PhD, RD; Douglas Raynor, PhD; Natalie Robinson, MS, RD; Deborah Robles; Jane Tavares, BS

The University of Texas Health Science Center at San Antonio Steven M. Haffner, MD<sup>1</sup>; Helen P. Hazuda, Ph.D.<sup>1</sup>; Maria G. Montez, RN, MSHP, CDE<sup>2</sup>; Carlos Lorenzo, MD<sup>3</sup>; Charles F. Coleman, MS, RD; Domingo Granado, RN; Kathy Hathaway, MS, RD; Juan Carlos Isaac, RC, BSN; Nora Ramirez, RN, BSN; Ronda Saenz, MS, RD

VA Puget Sound Health Care System / University of Washington Steven E. Kahn, MB, ChB<sup>1</sup>; Brenda Montgomery, RN, MS, CDE<sup>2</sup>; Robert Knopp, MD<sup>3</sup>; Edward Lipkin, MD<sup>3</sup>; Dace Trence, MD<sup>3</sup>; Terry Barrett, BS; Joli Bartell, BA; Diane Greenberg, PhD; Anne Murillo, BS; Betty Ann Richmond, MEd; Jolanta Socha, BS; April Thomas, MPH, RD; Alan Wesley, BA

Southwestern American Indian Center, Phoenix, Arizona and Shiprock, New Mexico William C. Knowler, MD, DrPH<sup>1</sup>; Paula Bolin, RN, MC<sup>2</sup>; Tina Killeen, BS<sup>2</sup>; Cathy Manus, LPN<sup>3</sup>; Jonathan Krakoff, MD<sup>3</sup>; Jeffrey M. Curtis, MD, MPH<sup>3</sup>; Justin Glass, MD<sup>3</sup>; Sara Michaels, MD<sup>3</sup>; Peter H. Bennett, MB, FRCP<sup>3</sup>; Tina Morgan<sup>3</sup>; Shandiin Begay, MPH; Paul Bloomquist, MD; Teddy Costa, BS; Bernadita Fallis RN, RHIT, CCS; Jeanette Hermes, MS, RD; Diane F. Hollowbreast; Ruby Johnson; Maria Meacham, BSN, RN, CDE; Julie Nelson, RD; Carol Percy, RN; Patricia Poorthunder; Sandra Sangster; Nancy Scurlock, MSN, ANP-C, CDE; Leigh A. Shovestull, RD, CDE; Janelia Smiley; Katie Toledo, MS, LPC; Christina Tomchee, BA; Darryl Tonemah, PhD

University of Southern California Anne Peters, MD<sup>1</sup>; Valerie Ruelas, MSW, LCSW<sup>2</sup>; Siran Ghazarian, MD<sup>2</sup>; Kathryn (Mandy) Graves Hillstrom, EdD, RD, CDE; Kati Konersman, MA, RD, CDE; Sara Serafin-Dokhan

### **Coordinating Center**

Wake Forest University Mark A. Espeland, PhD<sup>1</sup>; Judy L. Bahnson, BA, CCRP<sup>3</sup>; Lynne E. Wagenknecht, DrPH<sup>3</sup>; David Reboussin, PhD<sup>3</sup>; W. Jack Rejeski, PhD<sup>3</sup>; Alain G. Bertoni, MD, MPH<sup>3</sup>; Wei Lang, PhD<sup>3</sup>; Michael S. Lawlor, PhD<sup>3</sup>; David Lefkowitz, MD<sup>3</sup>; Gary D. Miller, PhD<sup>3</sup>; Patrick S. Reynolds, MD<sup>3</sup>; Paul M. Ribisl, PhD<sup>3</sup>; Mara Vitolins, DrPH<sup>3</sup>; Haiying Chen, PhD<sup>3</sup>; Delia S. West, PhD<sup>3</sup>; Lawrence M. Friedman, MD<sup>3</sup>; Brenda L. Craven, MS, CCRP<sup>2</sup>; Kathy M. Dotson, BA<sup>2</sup>; Amelia Hodges, BS, CCRP<sup>2</sup>; Carrie C. Williams, MA, CCRP<sup>2</sup>; Andrea Anderson, MS; Jerry M. Barnes, MA; Mary Barr; Daniel P. Beavers, PhD; Tara Beckner; Cralen Davis, MS; Thania Del Valle-Fagan, MD; Patricia A. Feeney, MS; Candace Goode; Jason Griffin, BS; Lea Harvin, BS; Patricia Hogan, MS; Sarah A. Gaussoin, MS; Mark King, BS; Kathy Lane, BS; Rebecca H. Neiberg, MS; Michael P. Walkup, MS; Karen Wall;

Terri Windham

### **Central Resources Centers**

DXA Reading Center, University of California at San Francisco Michael Nevitt, PhD<sup>1</sup>; Ann Schwartz, PhD<sup>2</sup>; John Shepherd, PhD<sup>3</sup>; Michaela Rahorst; Lisa Palermo, MS, MA; Susan Ewing, MS; Cynthia Hayashi; Jason Maeda, MPH

Central Laboratory, Northwest Lipid Metabolism and Diabetes Research Laboratories Santica M. Marcovina, PhD, ScD<sup>1</sup>; Jessica Chmielewski<sup>2</sup>; Vinod Gaur, PhD<sup>4</sup>

ECG Reading Center, EPICARE, Wake Forest University School of Medicine Elsayed Z. Soliman MD, MSc, MS<sup>1</sup>; Ronald J. Prineas, MD, PhD<sup>1</sup>; Charles Campbell<sup>2</sup>; Zhu-Ming Zhang, MD<sup>3</sup>; Teresa Alexander; Lisa Keasler; Susan Hensley; Yabing Li, MD

Diet Assessment Center, University of South Carolina, Arnold School of Public Health, Center for Research in Nutrition and Health Disparities Robert Moran, PhD<sup>1</sup>

Hall-Foushee Communications, Inc.  
Richard Foushee, PhD; Nancy J. Hall, MA

### **Federal Sponsors**

National Institute of Diabetes and Digestive and Kidney Diseases Mary Evans, PhD; Barbara Harrison, MS; Van S. Hubbard, MD, PhD; Susan Z. Yanovski, MD; Robert Kuczmarski, PhD

National Heart, Lung, and Blood Institute Lawton S. Cooper, MD, MPH; Peter Kaufman, PhD, FABMR

Centers for Disease Control and Prevention Edward W. Gregg, PhD; David F. Williamson, PhD; Ping Zhang, PhD

### **Funding and Support**

This study is supported by the Department of Health and Human Services through the following cooperative agreements from the National Institutes of Health: DK57136, DK57149, DK56990, DK57177, DK57171, DK57151, DK57182, DK57131, DK57002, DK57078, DK57154, DK57178, DK57219, DK57008, DK57135, and DK56992. The following federal agencies have contributed support: National Institute of Diabetes and Digestive and Kidney Diseases; National Heart, Lung, and Blood Institute; National Institute of Nursing Research; National Center on Minority Health and Health Disparities; NIH Office of Research on Women's Health; and the Centers for Disease Control and Prevention. This research was supported in part by the Intramural Research Program of the National Institute of Diabetes and Digestive and Kidney Diseases. The Indian Health Service (I.H.S.) provided personnel, medical oversight, and use of facilities. The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the I.H.S. or other funding sources.

Additional support was received from The Johns Hopkins Medical Institutions

Bayview General Clinical Research Center (M01RR02719); the Massachusetts General Hospital Mallinckrodt General Clinical Research Center and the Massachusetts Institute of Technology General Clinical Research Center (M01RR01066); the Harvard Clinical and Translational Science Center (RR025758-04); the University of Colorado Health Sciences Center General Clinical Research Center (M01RR00051) and Clinical Nutrition Research Unit (P30 DK48520); the University of Tennessee at Memphis General Clinical Research Center (M01RR0021140); the University of Pittsburgh General Clinical Research Center (GCRC) (M01RR000056), the Clinical Translational Research Center (CTRC) funded by the Clinical & Translational Science Award (UL1 RR 024153) and NIH grant (DK 046204); the VA Puget Sound Health Care System Medical Research Service, Department of Veterans Affairs; and the Frederic C. Bartter General Clinical Research Center (M01RR01346).

The following organizations have committed to make major contributions to Look AHEAD: FedEx Corporation; Health Management Resources; LifeScan, Inc., a Johnson & Johnson Company; OPTIFAST® of Nestle HealthCare Nutrition, Inc.; Hoffmann-La Roche Inc.; Abbott Nutrition; and Slim-Fast Brand of Unilever North America.

Some of the information contained herein was derived from data provided by the Bureau of Vital Statistics, New York City Department of Health and Mental Hygiene.

---

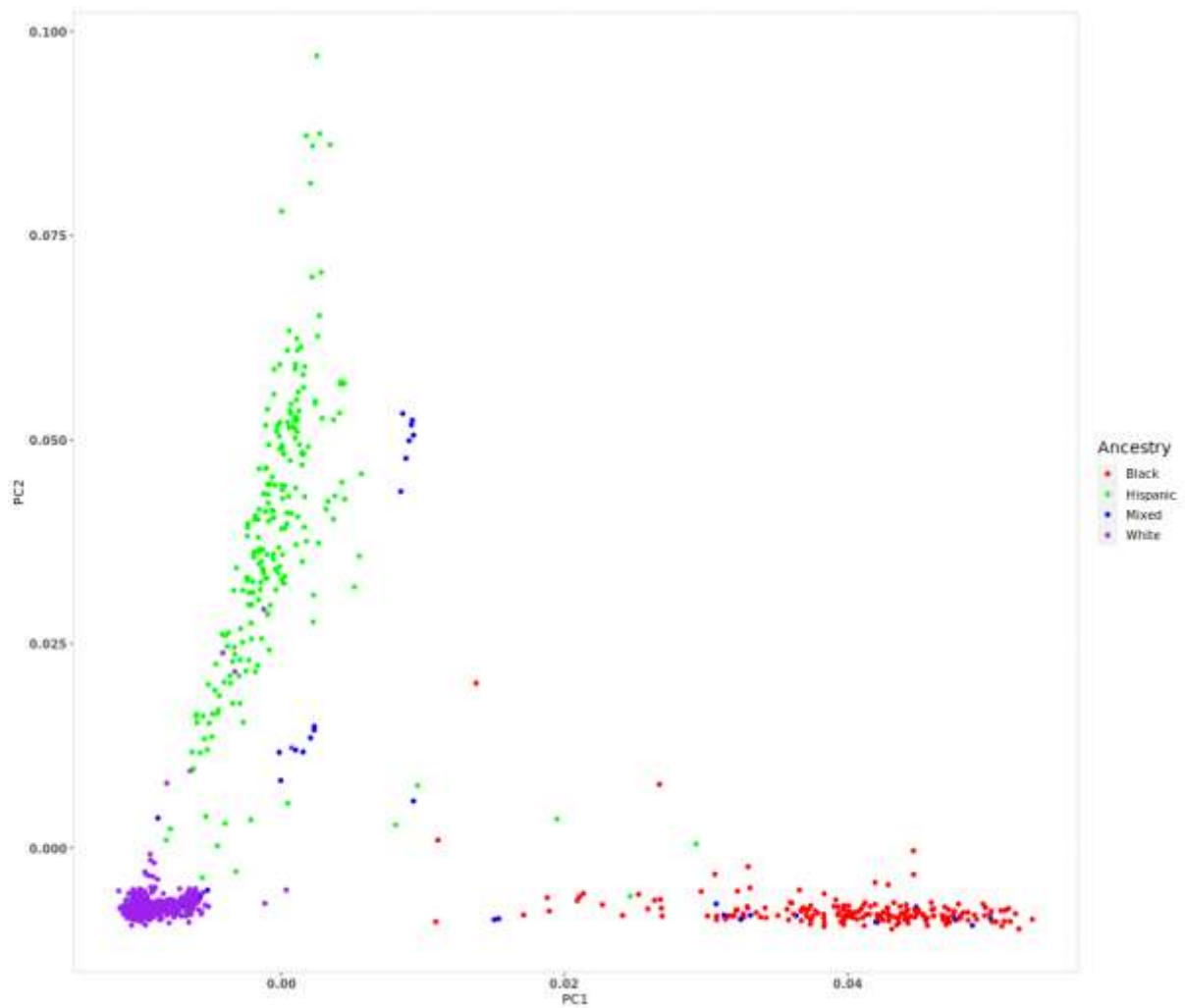
<sup>1</sup> Principal Investigator

<sup>2</sup> Program Coordinator

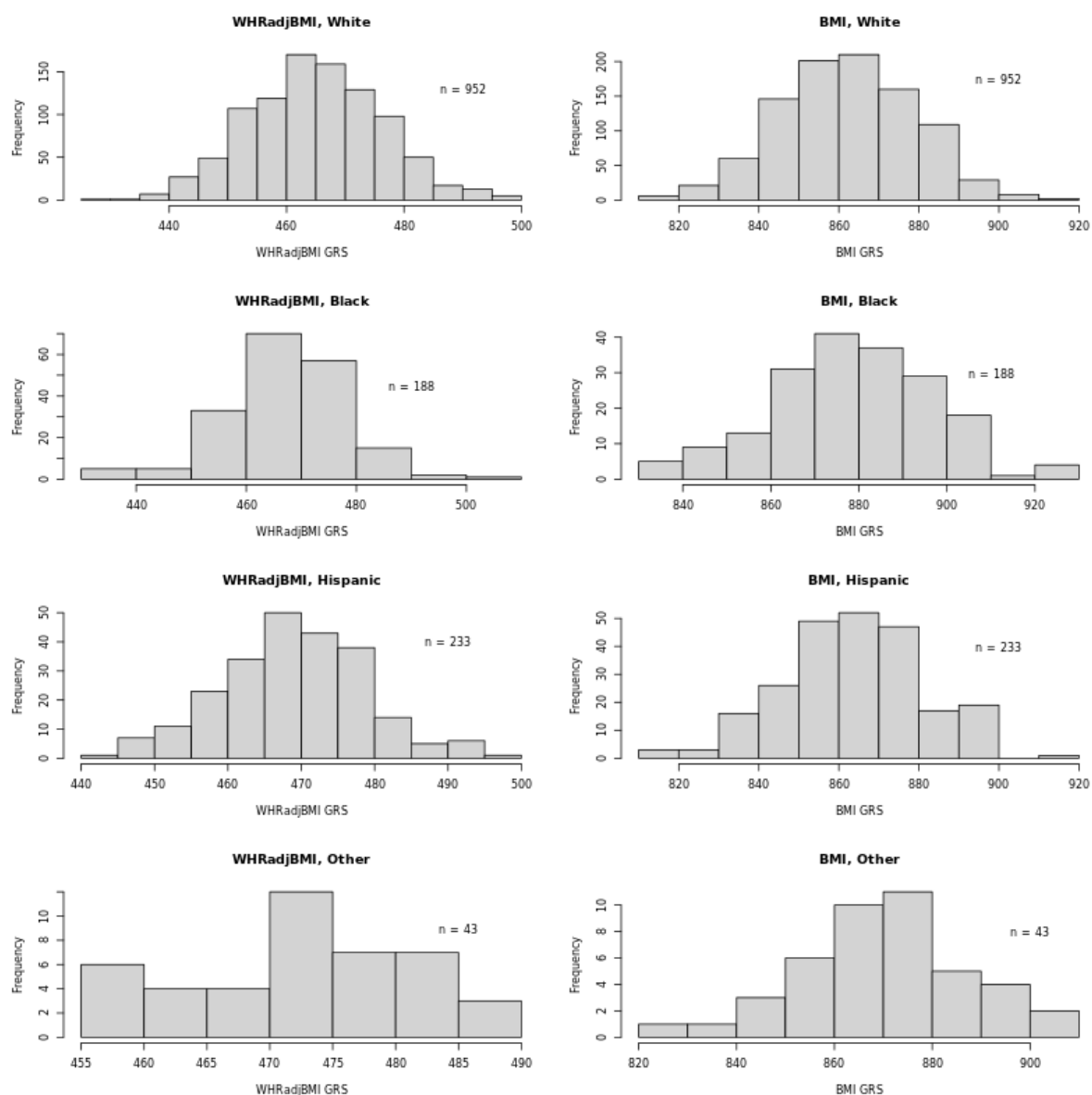
<sup>3</sup> Co-Investigator

All other Look AHEAD staffs are listed alphabetically by site.

## Supplementary Figures



**Supplementary Figure 1:** Plot of genetic principal component 1 (X axis) and 2 (Y axis) for the four ancestry groups. The participants cluster together in their respective ancestries.



**Supplementary Figure 2:** Histograms of the distribution of the genetic risk scores for  $WHR_{adjBMI}$  and BMI in the four ancestries in the Look AHEAD study. Plot of genetic principal component 1 (X axis) and 2 (Y axis) for the four ancestry groups. The participants cluster together in their respective ancestries.

# Supplementary Tables

**Supplementary Table 1: Associations of BMI and WHR<sub>adjBMI</sub> genetic scores with baseline weight and weight loss from baseline to year 1 in the subset of individuals who lost  $\geq 3$  % of initial body weight.**

ILI+DSE	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline weight	-0.129	0.042	$1.93 \times 10^{-3}$	1,416	Sex, baseline age, PC1 - PC4
BMI GRS	Baseline weight	0.135	0.027	$4.61 \times 10^{-7}$	1,416	Sex, baseline age, PC1 - PC4
WHR <sub>adjBMI</sub> GRS	Weight change baseline to year 1	-0.001	0.014	0.939	1,416	Intervention arm, sex, baseline age, PC1 - PC4, baseline weight, baseline height
BMI GRS	Weight change baseline to year 1	0.010	0.009	0.260	1,416	Intervention arm, sex, baseline age, PC1 - PC4, baseline weight, baseline height
ILI	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline weight	-0.142	0.047	$2.41 \times 10^{-3}$	1,089	Sex, baseline age, PC1 - PC4
BMI GRS	Baseline weight	0.131	0.030	$1.82 \times 10^{-5}$	1,089	Sex, baseline age, PC1 - PC4
WHR <sub>adjBMI</sub> GRS	Weight change baseline to year 1	0.002	0.017	0.896	1,089	Sex, baseline age, PC1 - PC4, baseline weight, baseline height
BMI GRS	Weight change baseline to year 1	0.013	0.011	0.252	1,089	Sex, baseline age, PC1 - PC4, baseline weight, baseline height
DSE	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline weight	-0.091	0.091	0.317	327	Sex, baseline age, PC1 - PC4
BMI GRS	Baseline weight	0.146	0.056	$9.38 \times 10^{-3}$	327	Sex, baseline age, PC1 - PC4
WHR <sub>adjBMI</sub> GRS	Weight change baseline to year 1	-0.018	0.022	0.405	327	Sex, baseline age, PC1 - PC4, baseline weight, baseline height



BMI GRS	Weight change baseline to year 1	0.000	0.013	0.981	327	Sex, baseline age, PC1 - PC4, baseline weight, baseline height
---------	----------------------------------	-------	-------	-------	-----	--

BMI = Body Mass Index, WHR<sub>adjBMI</sub> = Waist-Hip-Ratio adjusted for BMI, ILI = Intensive Lifestyle Intervention, DSE = Diabetes Support and Education, GRS = Genetic Risk Score, PC = (genetic) Principal Component.

**Supplementary Table 2: Results for associations of BMI and WHR<sub>adjBMI</sub> genetic scores with baseline waist circumference and reduction in waist circumference from baseline to year 1.**

ILI+DSE	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline WC	0.074	0.016	4.55x10 <sup>-6</sup>	1,415	Intervention arm, sex, baseline age, PC1 - PC4, baseline weight, baseline height
BMI GRS	Baseline WC	0.014	0.011	0.171	1,415	Intervention arm, sex, baseline age, PC1 - PC4, baseline weight, baseline height
WHR <sub>adjBMI</sub> GRS	WC change year 0 to 1	0.038	0.017	0.022	1,405	Intervention arm, sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference
BMI GRS	WC change year 0 to 1	0.002	0.011	0.869	1,405	Intervention arm, sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference
ILI	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline WC	0.070	0.019	2.56x10 <sup>-4</sup>	1,088	Sex, baseline age, PC1 - PC4, baseline weight, baseline height
BMI GRS	Baseline WC	0.014	0.012	0.255	1,088	Sex, baseline age, PC1 - PC4, baseline weight, baseline height
WHR <sub>adjBMI</sub> GRS	WC change year 0 to 1	0.043	0.020	0.032	1,080	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference
BMI GRS	WC change year 0 to 1	0.000	0.013	0.993	1,080	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference

DSE	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline WC	0.087	0.031	4.54x10 <sup>-3</sup>	327	Sex, baseline age, PC1 - PC4, baseline weight, baseline height
BMI GRS	Baseline WC	0.011	0.019	0.570	327	Sex, baseline age, PC1 - PC4, baseline weight, baseline height
WHR <sub>adjBMI</sub> GRS	WC change year 0 to 1	0.020	0.028	0.478	325	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference
BMI GRS	WC change year 0 to 1	0.004	0.017	0.803	325	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference

BMI = Body Mass Index, WHR<sub>adjBMI</sub> = Waist-Hip-Ratio adjusted for BMI, ILI = Intensive Lifestyle Intervention, DSE = Diabetes Support and Education, GRS = Genetic Risk Score, PC = (genetic) Principal Component.

**Supplementary Table 3: Associations of BMI and WHR<sub>adjBMI</sub> genetic scores with weight and waist circumference regain from year 1 to 2 and year 1 to 4 in the White subset of individuals who lost  $\geq 3$  % of initial body weight (and regained weight).**

**White subset of individuals who lost  $\geq 3$  % of initial body weight.**

ILI + DSE	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline WC	0.060	0.020	2.42x10 <sup>-3</sup>	952	Intervention arm, sex, baseline age, baseline weight, baseline height
BMI GRS	Baseline WC	0.008	0.013	0.569	952	Intervention arm, sex, baseline age, baseline weight, baseline height
WHR <sub>adjBMI</sub> GRS	WC change year 0 to 1	0.029	0.021	0.166	944	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference
BMI GRS	WC change year 0 to 1	0.006	0.014	0.655	944	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference

WHR <sub>adjBMI</sub> GRS	WC change year 1 to 2	0.035	0.011	2.44x10 <sup>-3</sup>	925	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
BMI GRS	WC change year 1 to 2	-0.008	0.008	0.304	925	Intervention arm sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
WHR <sub>adjBMI</sub> GRS	WC change year 1 to 4	0.026	0.012	0.037	925	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
BMI GRS	WC change year 1 to 4	0.008	0.008	0.306	925	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
GRS	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	Baseline weight	-0.122	0.052	0.019	952	Sex, baseline age
BMI GRS	Baseline weight	0.137	0.034	7.42x10 <sup>-5</sup>	952	Sex, baseline age
WHR <sub>adjBMI</sub> GRS	Weight change baseline to year 1	-0.015	0.018	0.426	952	Intervention arm, sex, baseline age, baseline weight, baseline height
BMI GRS	Weight change baseline to year 1	0.021	0.012	0.088	952	Intervention arm, sex, baseline age, baseline weight, baseline height
WHR <sub>adjBMI</sub> GRS	Weight change year 1 to 2	0.030	0.015	0.047	938	Intervention arm, sex, baseline age, baseline weight, baseline height, weight year 1
BMI GRS	Weight change year 1 to 2	0.009	0.010	0.384	938	Intervention arm, sex, baseline age, baseline weight, baseline height, weight year 1
WHR <sub>adjBMI</sub> GRS	Weight change year 1 to 4	-0.025	0.022	0.270	937	Intervention arm, sex, baseline age, baseline weight, baseline height, weight year 1
BMI GRS	Weight change year 1 to 4	0.015	0.015	0.312	937	Intervention arm, sex, baseline age, baseline weight, baseline height, weight year 1

White subset of individuals who lost  $\geq 3$  % of initial body weight and regained weight.

GRS	Outcome	Beta	Standard Error	P	N	Adjustments
WHR <sub>adjBMI</sub> GRS	WC change year 1 to 2	0.036	0.014	8.12x10 <sup>-3</sup>	701	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
BMI GRS	WC change year 1 to 2	-0.008	0.009	0.349	701	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
WHR <sub>adjBMI</sub> GRS	WC change year 1 to 4	0.024	0.015	0.105	712	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
BMI GRS	WC change year 1 to 4	0.008	0.010	0.397	712	Intervention arm, sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
WHR <sub>adjBMI</sub> GRS	Weight change year 1 to 2	0.011	0.011	0.348	711	Intervention arm, sex, baseline age, baseline weight, baseline height, weight year 1
BMI GRS	Weight change year 1 to 2	0.005	0.008	0.517	711	Intervention arm, sex, baseline age, _baseline weight, baseline height, weight year 1
WHR <sub>adjBMI</sub> GRS	Weight change year 1 to 4	-0.010	0.017	0.539	722	Intervention arm, sex, baseline age, _baseline weight, baseline height, weight year 1
BMI GRS	Weight change year 1 to 4	0.011	0.012	0.344	722	Intervention arm, sex, baseline age, _baseline weight, baseline height, weight year 1

BMI = Body Mass Index, WHR<sub>adjBMI</sub> = Waist-Hip-Ratio adjusted for BMI, ILI = Intensive Lifestyle Intervention, DSE = Diabetes Support and Education, GRS = Genetic Risk Score, PC = (genetic) Principal Component.

**Supplementary Table 4: Associations of BMI and WHR<sub>adjBMI</sub> genetic scores x Intervention with weight and waist circumference regain from year 1 to 2 and year 1 to 4 in the subset of individuals who lost  $\geq 3$  % of initial body weight (and regained weight).**

**Subset of individuals who lost  $\geq 3$  % of initial body weight.**

<b>ILI+DSE</b>	<b>Outcome</b>	<b>Beta</b>	<b>Standard Error</b>	<b>P</b>	<b>N</b>	<b>Adjustments</b>
WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 2	-0.018	0.022	0.432	1,367	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 4	0.010	0.024	0.698	1,372	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
BMI GRS x Intervention	WC change year 1 to 2	0.007	0.014	0.588	1,367	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
BMI GRS x Intervention	WC change year 1 to 4	0.006	0.015	0.676	1,372	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
WHR <sub>adjBMI</sub> GRS x Intervention	Weight change year 1 to 2	-0.051	0.029	0.073	1,386	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1
WHR <sub>adjBMI</sub> GRS x Intervention	Weight change year 1 to 4	0.023	0.043	0.594	1,388	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	Weight change year 1 to 2	-0.017	0.017	0.317	1,386	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	Weight change year 1 to 4	-0.002	0.026	0.955	1,388	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1

**Subset of individuals who lost  $\geq 3$  % of initial body weight and regained weight.**

<b>ILI+DSE</b>	<b>Outcome</b>	<b>BETA</b>	<b>SE</b>	<b>P</b>	<b>N</b>	<b>Adjustments</b>
----------------	----------------	-------------	-----------	----------	----------	--------------------

WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 2	-0.031	0.028	0.271	995	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 4	0.001	0.032	0.972	1,032	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
BMI GRS x Intervention	WC change year 1 to 2	0.011	0.018	0.548	995	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
BMI GRS x Intervention	WC change year 1 to 4	0.017	0.019	0.367	1,032	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
WHR <sub>adjBMI</sub> GRS x Intervention	weight year 1 to 2	0.004	0.024	0.873	1,010	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1
WHR <sub>adjBMI</sub> GRS x Intervention	weight year 1 to 4	0.053	0.037	0.146	1,045	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	weight year 1 to 2	-0.017	0.015	0.244	1,010	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	weight year 1 to 4	0.009	0.022	0.683	1,045	Sex, baseline age, PC1 - PC4, baseline weight, baseline height, weight year 1
<b>White subset of individuals who lost <math>\geq 3</math> % of initial body weight.</b>						
<b>ILI+DSE</b>	<b>Outcome</b>	<b>BETA</b>	<b>SE</b>	<b>P</b>	<b>N</b>	<b>Adjustments</b>
WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 2	-0.003	0.026	0.912	925	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 4	0.010	0.028	0.722	925	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
BMI GRS x Intervention	WC change year 1 to 2	0.010	0.018	0.563	925	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2

BMI GRS x Intervention	WC change year 1 to 4	-0.004	0.019	0.823	925	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
WHR <sub>adjBMI</sub> GRS x Intervention	Weight change year 1 to 2	-0.030	0.034	0.377	938	Sex, baseline age, baseline weight, baseline height, weight year 1
WHR <sub>adjBMI</sub> GRS x Intervention	Weight change year 1 to 4	0.020	0.052	0.705	937	Sex, baseline age, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	Weight change year 1 to 2	-0.025	0.023	0.277	938	Sex, baseline age, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	Weight change year 1 to 4	0.001	0.035	0.986	937	Sex, baseline age, baseline weight, baseline height, weight year 1
<b>White subset of individuals who lost <math>\geq 3</math> % of initial body weight and regained weight.</b>						
<b>ILI+DSE</b>	<b>Outcome</b>	<b>BETA</b>	<b>SE</b>	<b>P</b>	<b>N</b>	<b>Adjustments</b>
WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 2	-0.001	0.033	0.985	701	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
WHR <sub>adjBMI</sub> GRS x Intervention	WC change year 1 to 4	0.017	0.037	0.656	712	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
BMI GRS x Intervention	WC change year 1 to 2	0.020	0.024	0.385	701	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 2
BMI GRS x Intervention	WC change year 1 to 4	-0.008	0.026	0.767	712	Sex, baseline age, baseline weight, baseline height, baseline waist circumference, weight year 1, waist circumference year 1, weight year 4
WHR <sub>adjBMI</sub> GRS x Intervention	Weight change year 1 to 2	0.001	0.028	0.968	711	Sex, baseline age, baseline weight, baseline height, weight year 1
WHR <sub>adjBMI</sub> GRS x Intervention	Weight change year 1 to 4	0.063	0.043	0.145	722	Sex, baseline age, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	Weight change year 1 to 2	-0.027	0.020	0.170	711	Sex, baseline age, baseline weight, baseline height, weight year 1
BMI GRS x Intervention	Weight change year 1 to 4	0.002	0.030	0.949	722	Sex, baseline age, baseline weight, baseline height, weight year 1

---

BMI = Body Mass Index,  $\text{WHR}_{\text{adjBMI}}$  = Waist-Hip-Ratio adjusted for BMI, ILI = Intensive Lifestyle Intervention, DSE = Diabetes Support and Education, GRS = Genetic Risk Score, PC = (genetic) Principal Component.