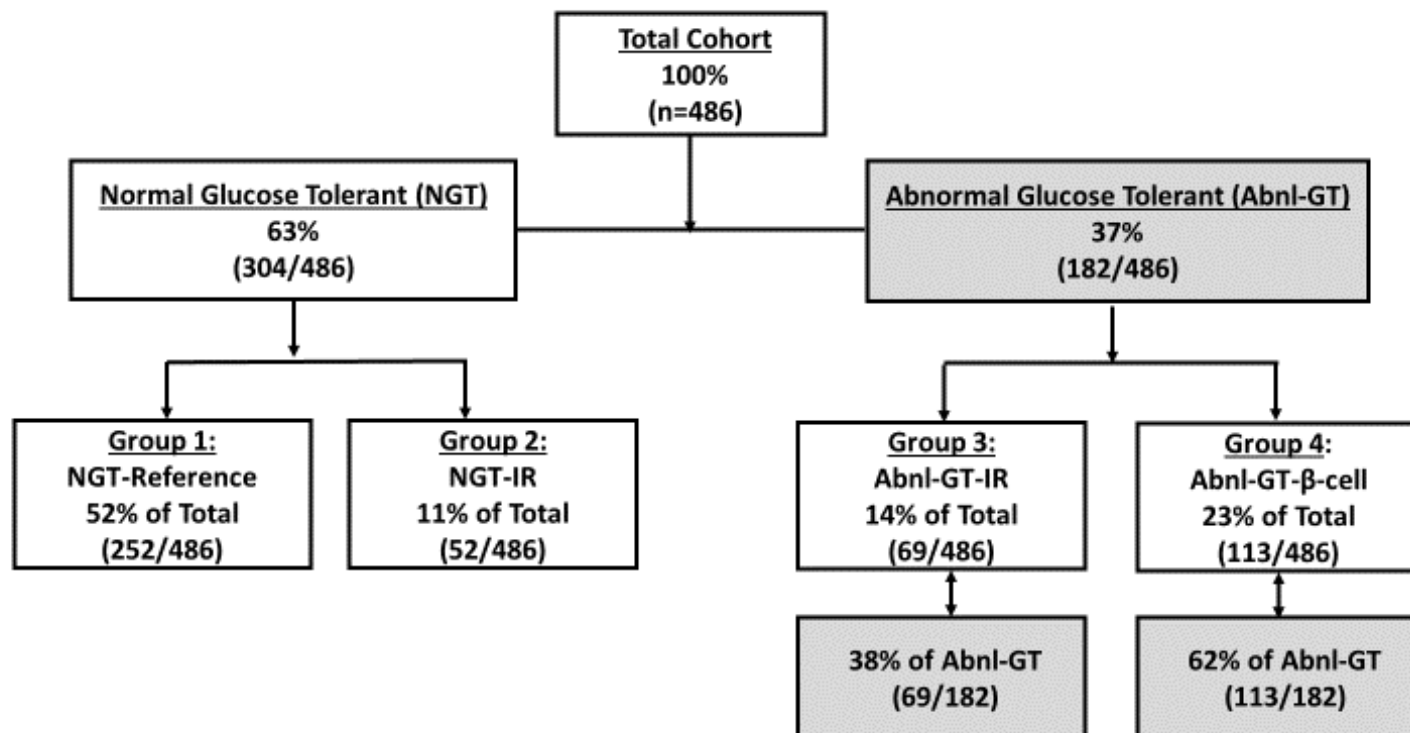


Supplement Figure 1: Flowchart for Establishment of Glucose Tolerance Groups



Supplement Table 1: Participant Characteristics by African Region of Origin

Parameter ¹	Total (n=486)	West 51% (n=250)	Central 20% (n=95)	East 29% (n=141)	P-value ²
Sex (% Male)	64%	64%	74%	58%	0.051
Current Age (y)	38±10	39±11	37±11	37±9	0.280
Age at entry to United States (y)	26±11	25±11	28±9	27±11	0.097
Years in the United States (y)	12±10	14±11	10±8	10±9	<0.001, a**b**
Hemoglobin (g/dL)	14.0±1.4	13.9±1.4	14.0±1.3	14.1±1.5	0.595
Hematocrit (%)	41.8±3.9	41.7±4.1	41.6±3.6	42.0±3.8	0.713
Mean Corpuscular Volume (fL)	85.5±5.4	85.1±6.0	84.7±5.1	86.8±4.4	0.003, b**c*
Sickle Cell or HbC Trait (%)	18%	23%	20%	7%	<0.001
BMI (kg/m ²)	27.6±4.4	28.0±4.5	27.8±4.8	27.0±4.1	0.096
WC (cm)	91±12	91±12	89±11	91±12	0.445
VAT (cm ²)	95±68	92±63	98±72	101±71	0.429
Fasting Plasma Glucose (mmol/L)	5.1±0.7	5.1±0.9	5.1±1.5	5.1±0.5	0.937
2h glucose (mmol/L)	7.3±2.3	7.3±2.5	7.4±1.8	7.3±2.3	0.960
AUC-glucose during the OGTT	543±125	537±136	552±100	547±120	0.524
A1C (mmol/mol)	36±7	36±9	37±6	35±5	0.266
A1C (%)	5.4±0.7	5.4±0.8	5.5±0.5	5.4±0.4	0.266
Abnl-GT (%)	37%	35%	41%	39%	0.545
Abnl-GT with β-failure (%)	62%	63%	67%	58%	0.701

¹ Data expressed as mean±SD

² Comparison by One-Way ANOVA with Tukey's test or Chi-square as appropriate

a: Comparison between West and Central Africa; b: comparison between West and East Africa; c: comparison between Central and East Africa

*P-value < 0.05; **P-value < 0.01; ***P-value < 0.001

Supplement Table 2: Population Characteristics by Glucose Tolerance Group using HOMA-IR

Characteristic ¹	Total Cohort N=486	NGT 51% n=250 Ref	NGT-IR ² 11% n=54	Abnl-GT-IR ² 14% n=69	Abnl-GT-β-cell 23% n=113
Sex (% Male)	64%	63%	54%	70%	70%
Age	38±10	35±10	37±8	43±10***	42±10***
BMI	27.6±4.4	26.2±4.0	30.4±4.0***	31.0±4.5***	27.4±3.8###
Obesity Prevalence	27%	18%	52%***	54%***	18% ###
WC	91±12	86±10	98±10***	101±10***	91±10* ###
sysBP	120±14	118±13	119±12	122±15	122±14*
diaBP	72±10	71±9	70±9	73±9	74±11
VAT (n=471)	96±68	66±50	125±60***	161±71***	109±65*** ###
HOMA-IR	1.66±1.32	0.99±0.49	3.11±0.98***	3.67±1.64***	1.23±0.49* ###
HOMA-β	91.2±65.4	69.9±34.0	199.3±99.2***	124.7±60.8***	66.1±32.8###
Oral DI (HOMA)	65.3±34.1	76.3±31.0	64.3±29.3*	37.0±14.8***	59.1±39.5*** ###
Fasting Plasma Glucose (mmol/L)	5.1±0.7	4.8±0.3	5.0±0.3	6.0±1.4***	5.2±0.6*** ###
Glucose at 2h (mmol/L)	7.3±2.3	6.0±0.9	6.6±0.8*	10.0±3.2***	9.0±1.8*** ##
Glucose AUC during the OGTT	543±125	474±66	511±63**	694±170***	618±86*** ###
A1C (mmol/mol)	36±7	34±5	35±5	40±13***	37±5** #
A1C (%) (n=483)	5.4±0.7	5.3±0.5	5.3±0.5	5.8±1.2***	5.5±0.5** #
Diabetes (%)	7%	0%	0%	28%***	12%*** ##
Cholesterol (mmol/L)	4.25±0.91	4.11±0.89	4.29±0.76	4.53±0.95*	4.38±0.94
TG (mmol/L)	0.83±0.43	0.70±0.30	0.89±0.41**	1.20±0.59***	0.86±0.43** ###
HDL (mmol/L)	1.33±0.36	1.41±0.37	1.24±0.27***	1.18±0.33***	1.31±0.32** #
LDL (mmol/L)	2.54±0.81	2.39±0.79	2.65±0.69*	2.80±0.95**	2.69±0.77*
apoB (g/L)	0.82±0.23	0.77±0.21	0.87±0.20**	0.93±0.24***	0.86±0.25*
apoA (g/L)	1.34±0.23	1.36±0.23	1.28±0.18**	1.32±0.23	1.33±0.23*
LDL size (n=479)	20.8±0.5	20.9±0.5	20.8±0.5	20.5±0.5***	20.9±0.6 ###
HDL size	9.4±0.6	9.5±0.6	9.1±0.5***	9.0±0.5***	9.4±0.7* ###

¹Comparisons to the reference group are by multiple regression adjusted for age, *P≤0.05, **P≤0.01, ***P≤0.001

²Comparisons of groups 3 and 4 by unpaired t-test, #P≤0.05, ##P≤0.01, ###P≤0.001

Supplement Table 3: Behavioral and Social Characteristics by Glucose Tolerance Group

Social Variable	NGT	NGT-IR	Abnl-GT-IR	Abnl-GT-β-cell	P-value
High Risk Reason for Immigration (n=207) ¹	25%	33%	43%	35%	0.220
Duration of US Residence \geq 10 years	25%	33%	43%	35%	0.197
Sedentary Behavior (n=281)	11%	30%**	30%**	22%	0.007
Fruit or Veg \geq 5/day (n=243)	16%	7%	5%	18%	0.158
Smoking	6%	6%	2%	5%	0.533
Alcohol \geq 1drink/week	26%	23%	35%	23%	0.325
Health Insurance	68%	65%	64%	70%	0.825
Income \geq 40k	46%	52%	45%	52%	0.653
College Graduate	73%	73%	72%	72%	0.997

¹High Risk Reasons for Immigration (Work or Asylum/Refugee) vs Low Risk Reasons for Immigration (Study, Family Reunification or Diversity Lottery)