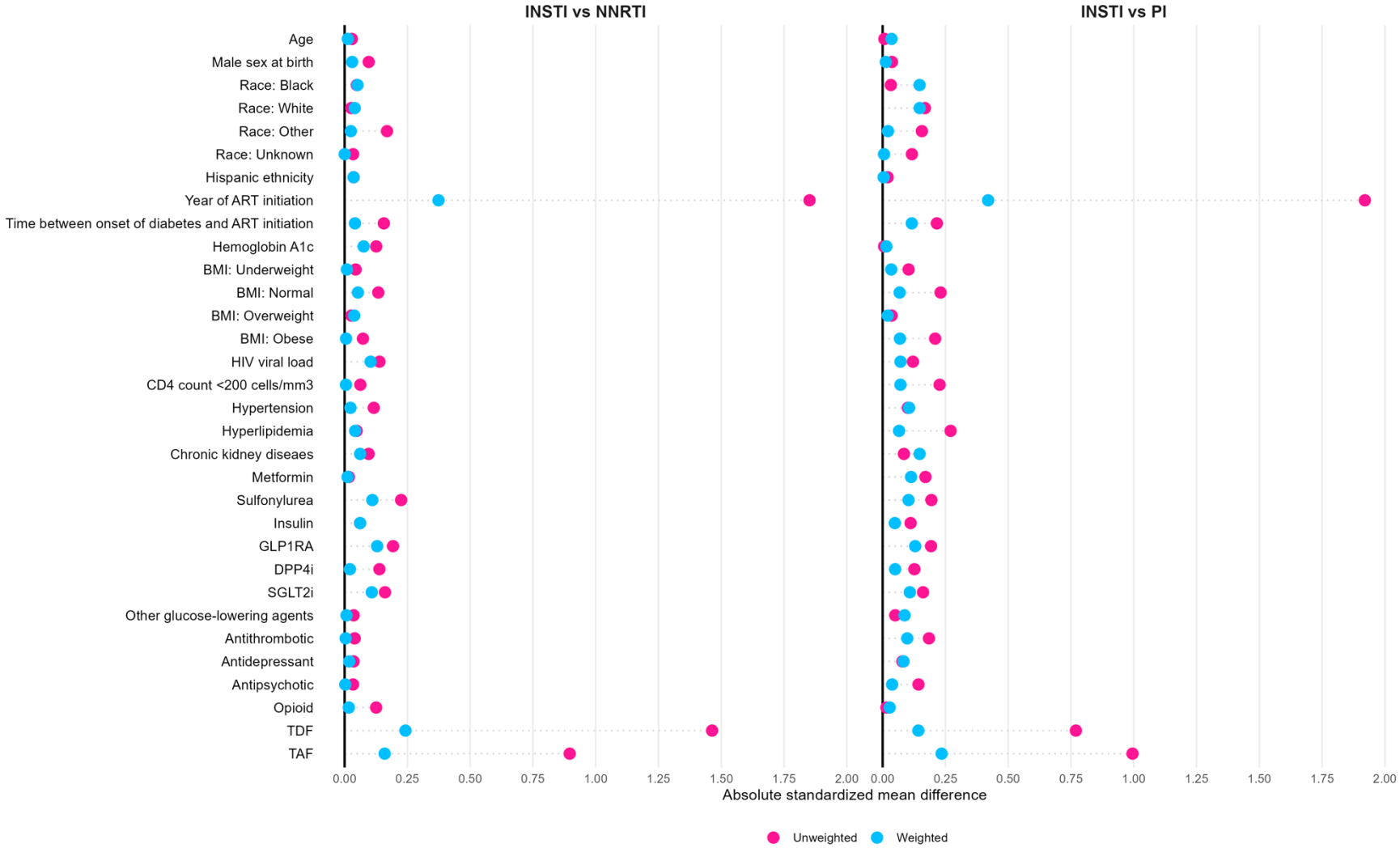
**Supplementary Table 1.** Definition of diabetes-specific and diabetes-related medications in NA-ACCORD

| Category | Individual Agents |
|---|---|
| Diabetes-specific medications | Linagliptin + metformin, saxagliptin + metformin, sitagliptin + metformin, repaglinide + metformin, alogliptin, linagliptin, saxagliptin, sitagliptin, insulin, insulin + liraglutide, insulin + lixisenatide, nateglinide, repaglinide, pramlintide, canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, canagliflozin + metformin, dapagliflozin + metformin, empagliflozin + metformin, ertugliflozin + metformin, empagliflozin + linagliptin + metformin, empagliflozin + linagliptin, chlorpropamide, gliclazide, glimepiride, glipizide, glipizide extended-release, glyburide, tolazamide, tolbutamide, glipizide + metformin, glyburide + metformin, pioglitazone + glimepiride, rosiglitazone + glimepiride |
| Diabetes-related medications | Acarbose, miglitol, metformin, metformin + rosiglitazone, pioglitazone + metformin, albiglutide, dulaglutide, exenatide, liraglutide, lixisenatide, semaglutide inject, semaglutide oral, semaglutide unspecified, tirzepatide, pioglitazone, rosiglitazone, troglitazone |

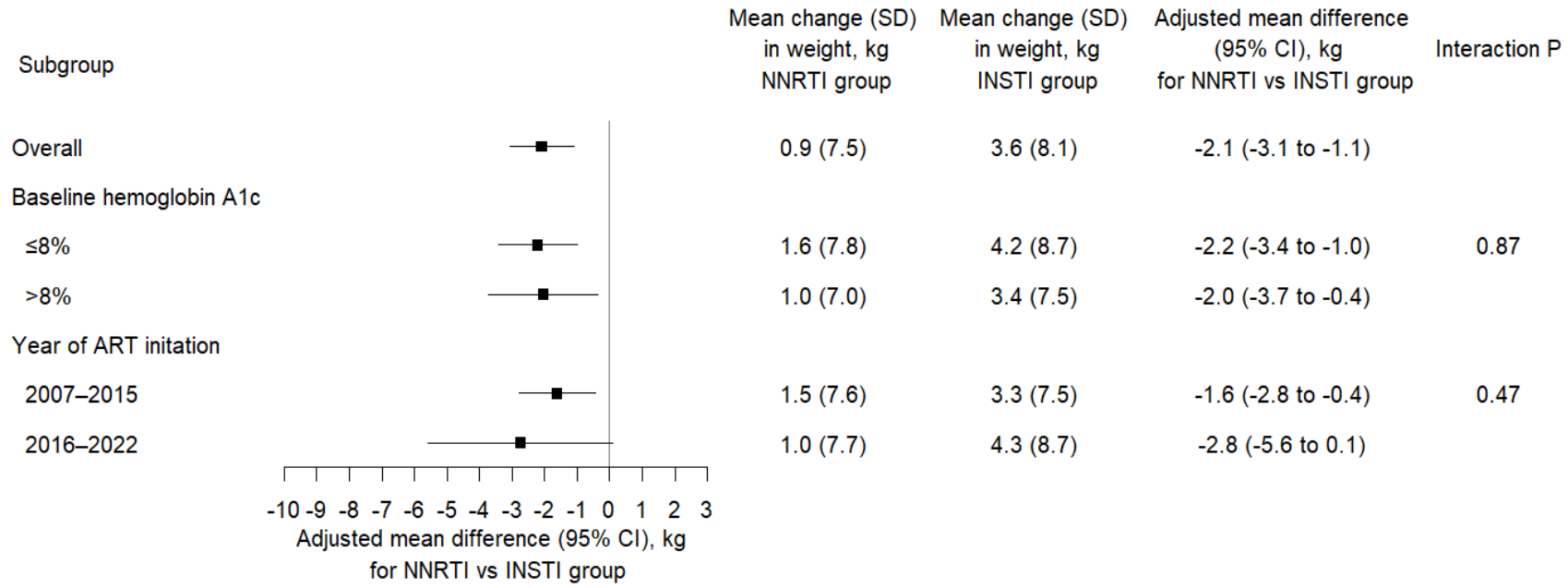
**Supplementary Table 2.** Definition of comorbidities in NA-ACCORD

| Comorbidities | Definition |
|---|---|
| Hypertension | Presence of prescription for antihypertensive medication and hypertensive diagnosis prior to antiretroviral therapy initiation. |
| Hyperlipidemia | Presence of prescription for lipid-lowering medication prior to antiretroviral therapy initiation. |
| Chronic kidney disease stage 3 or greater | Presence of first of ≥2 observed measurements, where estimated glomerular filtration rate was consistently <60 mL/min/1.73m2 over a period of at least 3 months, prior to antiretroviral therapy initiation. |

**Supplementary Figure 1.** Love plot comparison of standardized mean differences for baseline characteristics before and after inverse probability of treatment weighting among PWH with diabetes initiating INSTI-based vs NNRTI- or PI-based regimens.

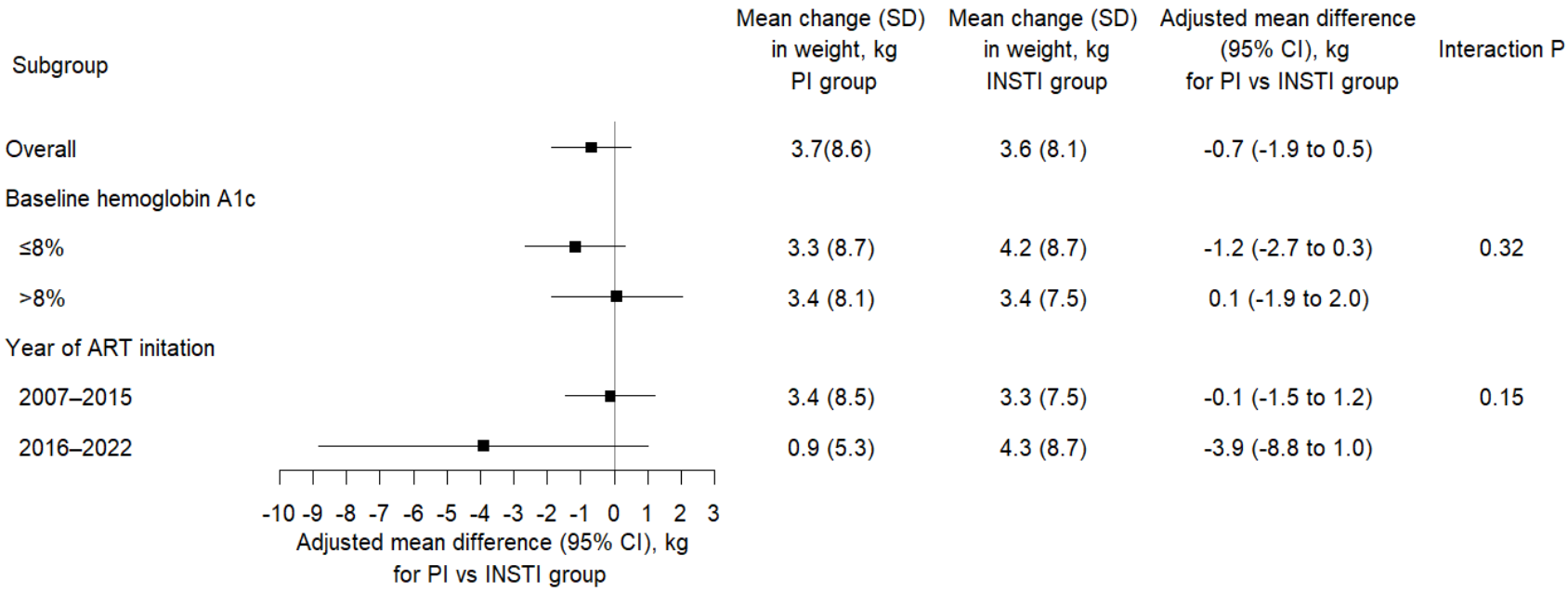


**Supplementary Figure 2a.** Comparison of changes in weight among PWH with diabetes who initiated an NNRTI- vs INSTI-based regimen in subgroups defined by baseline glycemic control and calendar year of study regimen initiation.



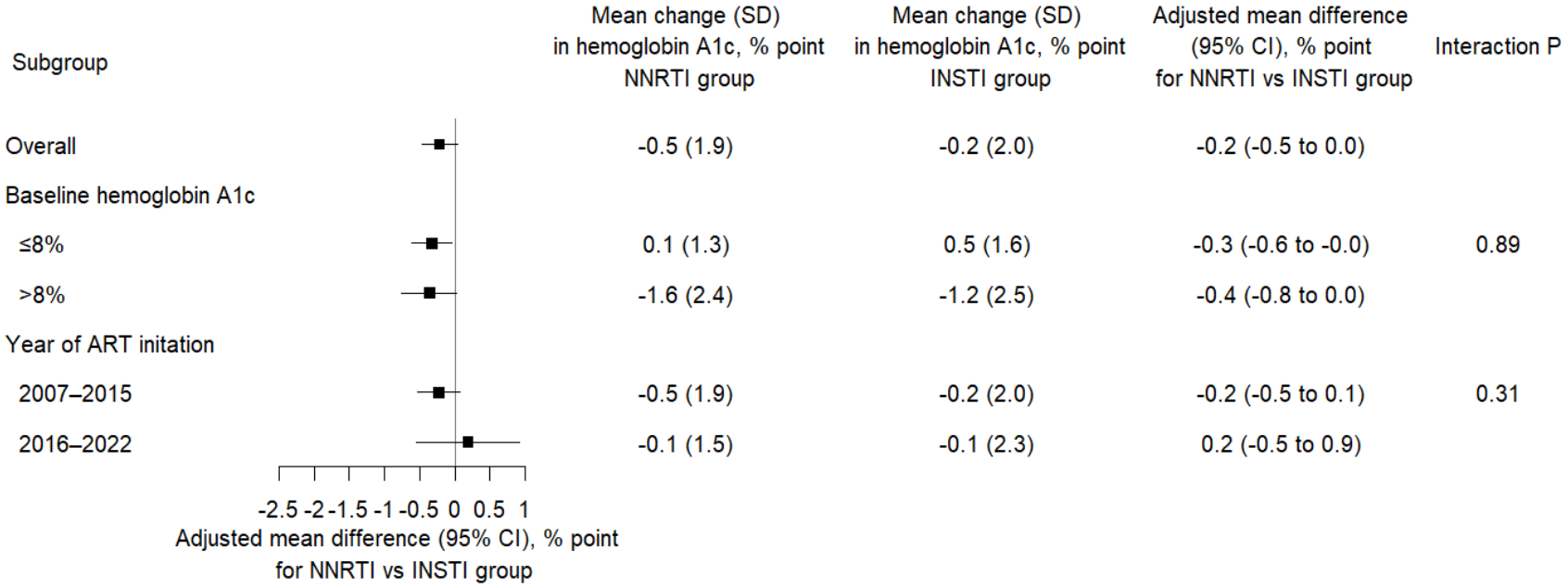

Adjusted mean differences were derived using inverse probability of treatment weighted generalized linear models that accounted for all characteristics in Table 1, including demographics, HIV-related characteristics, comorbidities, and co-medications.

**Supplementary Figure 2b.** Comparison of changes in weight among PWH with diabetes who initiated a PI- vs INSTI-based regimen in subgroups defined by baseline glycemic control and calendar year of study regimen initiation.



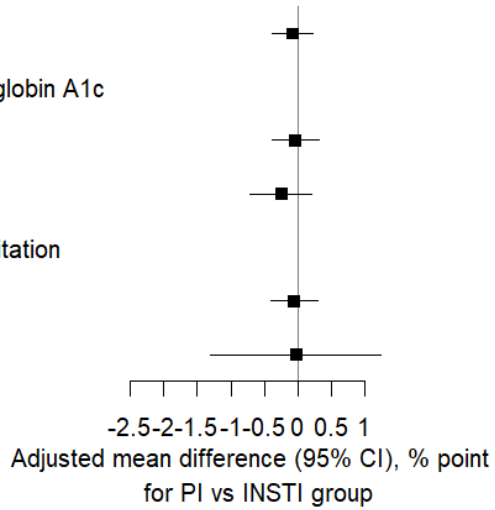

Adjusted mean differences were derived using inverse probability of treatment weighted generalized linear models that accounted for all characteristics in Table 1, including demographics, HIV-related characteristics, comorbidities, and co-medications.

**Supplementary Figure 3a.** Comparison of changes in hemoglobin A1c among PWH with diabetes who initiated an NNRTI- vs INSTI-based regimen in subgroups defined by baseline glycemic control and calendar year of study regimen initiation.




Adjusted mean differences were derived using inverse probability of treatment weighted generalized linear models that accounted for all characteristics in Table 1, including demographics, HIV-related characteristics, comorbidities, and co-medications.

**Supplementary Figure 3b.** Comparison of changes in hemoglobin A1c among PWH with diabetes who initiated a PI- vs INSTI-based regimen in subgroups defined by baseline glycemic control and calendar year of study regimen initiation.




| Subgroup | Mean change (SD) in hemoglobin A1c, % point PI group | Mean change (SD) in in hemoglobin A1c, % point INSTI group | Adjusted mean difference (95% CI), % point for PI vs INSTI group | Interaction P |
|---|---|---|---|---|
| Overall | -0.3 (2.2) | -0.2 (2.0) | -0.1 (-0.4 to 0.2) | |
| Baseline hemoglobin A1c | | | | |
| ≤8% | 0.4 (1.6) | 0.5 (1.6) | -0.0 (-0.4 to 0.3) | 0.48 |
| >8% | -1.5 (2.4) | -1.2 (2.5) | -0.3 (-0.7 to 0.2) | |
| Year of ART initation | | | | |
| 2007–2015 | -0.3 (2.0) | -0.2 (2.0) | -0.1 (-0.4 to 0.3) | 0.97 |
| 2016–2022 | -0.9 (5.1) | -0.1 (2.3) | -0.0 (-1.3 to 1.2) | |

Adjusted mean differences were derived using inverse probability of treatment weighted generalized linear models that accounted for all characteristics in Table 1, including demographics, HIV-related characteristics, comorbidities, and co-medications.