## SUPPLEMENTAL MATERIAL

### Supplemental Methods:

In sub-analyses, we compared the hazard of all-cause mortality of recipients of diabetic donor kidneys vs. recipients of non-diabetic donor kidneys vs. patients who remained on the waitlist. Patients entered into the study at the time of wait-listing. Cox proportional hazards regression was used to estimate HRs and 95% CIs. Time-varying exposure was incorporated at the time of transplant with either a diabetic or non-diabetic donor kidney. Supplemental Tables 1 and 2a and Supplemental Figures 1 and 2 below demonstrate the results of these analyses, which are consistent with the conclusions drawn in the primary analyses.

**Supplemental Table 1. Time-varying multivariable Cox proportional hazards for cumulative mortality in patients who received diabetic donor kidneys and non-diabetic donor kidneys compared to remaining on the waitlist A) in the overall cohort, B) when restricting to only patients willing to accept an ECD-donor kidney, C) when restricting to only patients who are always active on the waitlist, and D) when restricting to only patients who were waitlisted on or after 2004.**

|  | HR* | p-value | 95% CI |
|---|---|---|---|
| **A) Overall Cohort (n = 437,619)** | | | |
| Waitlist | REF | | |
| Diabetic Donor | 0.29 | <0.001 | 0.27-0.31 |
| Non-Diabetic Donor | 0.19 | <0.001 | 0.18-0.19 |
| **B) Willing to Accept ECD Kidney (n = 304,701)** | | | |
| Waitlist | REF | | |
| Diabetic Donor | 0.29 | <0.001 | 0.27-0.32 |
| Non-Diabetic Donor | 0.20 | <0.001 | 0.19-0.20 |
| **C) Always Active on the Waitlist (n = 320,282)** | | | |
| Waitlist | REF | | |
| Diabetic Donor | 0.22 | <0.001 | 0.20-0.25 |
| Non-Diabetic Donor | 0.15 | <0.001 | 0.15-0.16 |
| **D) Waitlisted 2004 or later (n = 271,403)** | | | |
| Waitlist | REF | | |
| Diabetic Donor | 0.30 | <0.001 | 0.27-0.34 |
| Non-Diabetic Donor | 0.18 | <0.001 | 0.17-0.18 |

**Supplemental Table 2. Time-varying multivariable Cox proportional hazards for cumulative mortality in A) patients who received diabetic donor kidneys and non-diabetic donor kidneys compared to remaining on the waitlist, stratified by KDPI, B) patients who received diabetic donor kidneys compared to the strategy of remaining on the waitlist or waiting for a non-diabetic donor kidney, stratified by KDPI and C) patients who received diabetic donor kidneys compared to the strategy of remaining on the waitlist or waiting for a low-KDPI non-diabetic donor kidney, stratified by KDPI with two cut-points.\*\***

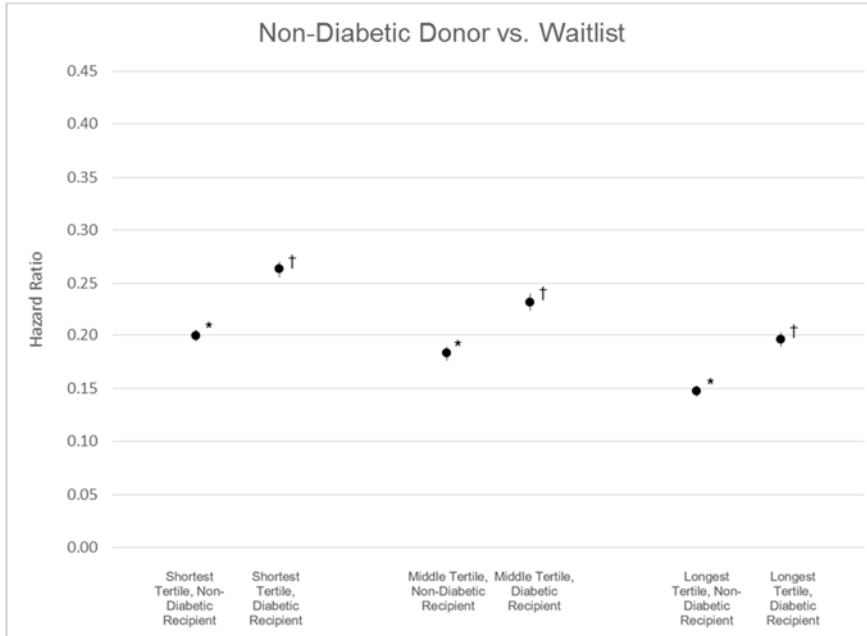|  | HR* | p-value | 95% CI |
|---|---|---|---|
| **A) Overall Cohort (n = 437,619)** |  |  |  |
| Waitlist | REF |  |  |
| Diabetic Donor, KDPI <85% | 0.25 | <0.001 | 0.22-0.28 |
| Diabetic Donor, KDPI ≥85% | 0.36 | <0.001 | 0.32-0.40 |
| Non-Diabetic Donor, KDPI <85% | 0.18 | <0.001 | 0.17-0.18 |
| Non-Diabetic Donor, KDPI ≥85% | 0.29 | <0.001 | 0.27-0.31 |
| **B) Overall Cohort (n = 437,619)** |  |  |  |
| Waitlist or Non-Diabetic Donor | REF |  |  |
| Diabetic Donor, KDPI <85% | 0.77 | <0.001 | 0.69-0.86 |
| Diabetic Donor, KDPI ≥85% | 1.11 | 0.076 | 0.99-1.24 |
| **C) Overall Cohort (n = 437,619)\*\*** |  |  |  |
| Waitlist or Non-Diabetic Donor, KDPI <20% | REF |  |  |
| Diabetic Donor, KDPI <20% | 0.57 | 0.022 | 0.36-0.92 |
| Diabetic Donor, KDPI 20-85% | 0.50 | <0.001 | 0.45-0.56 |
| Diabetic Donor, KDPI >85% | 0.69 | <0.001 | 0.62-0.78 |
| Non-Diabetic Donor, KDPI 20-85% | 0.38 | <0.001 | 0.37-0.40 |
| Non-Diabetic Donor, KDPI >85% | 0.57 | <0.001 | 0.54-0.61 |

*All multivariable models were adjusted for candidate diabetes status, center median waitlist-time tertile, three-way interaction between donor diabetes status, candidate diabetes status, and center median waitlist-time tertile, in addition to candidate age, gender, waitlist year, race, ABO blood type, panel reactive antibody, and dialysis vintage.
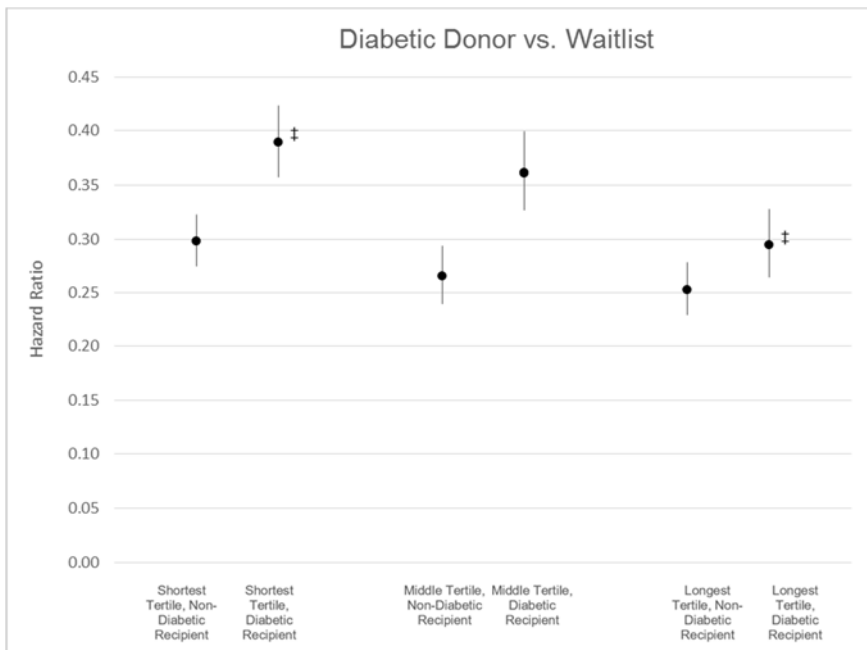
**Analysis was under-powered (Table S2C)

**Supplemental Figure 1.** Cumulative Hazard of Mortality Compared to Remaining on the Waitlist by Donor Diabetes Status, Recipient Diabetes Status, and Center Median-Waitlist Time Tertile.

**Supplemental Figure 1a.**
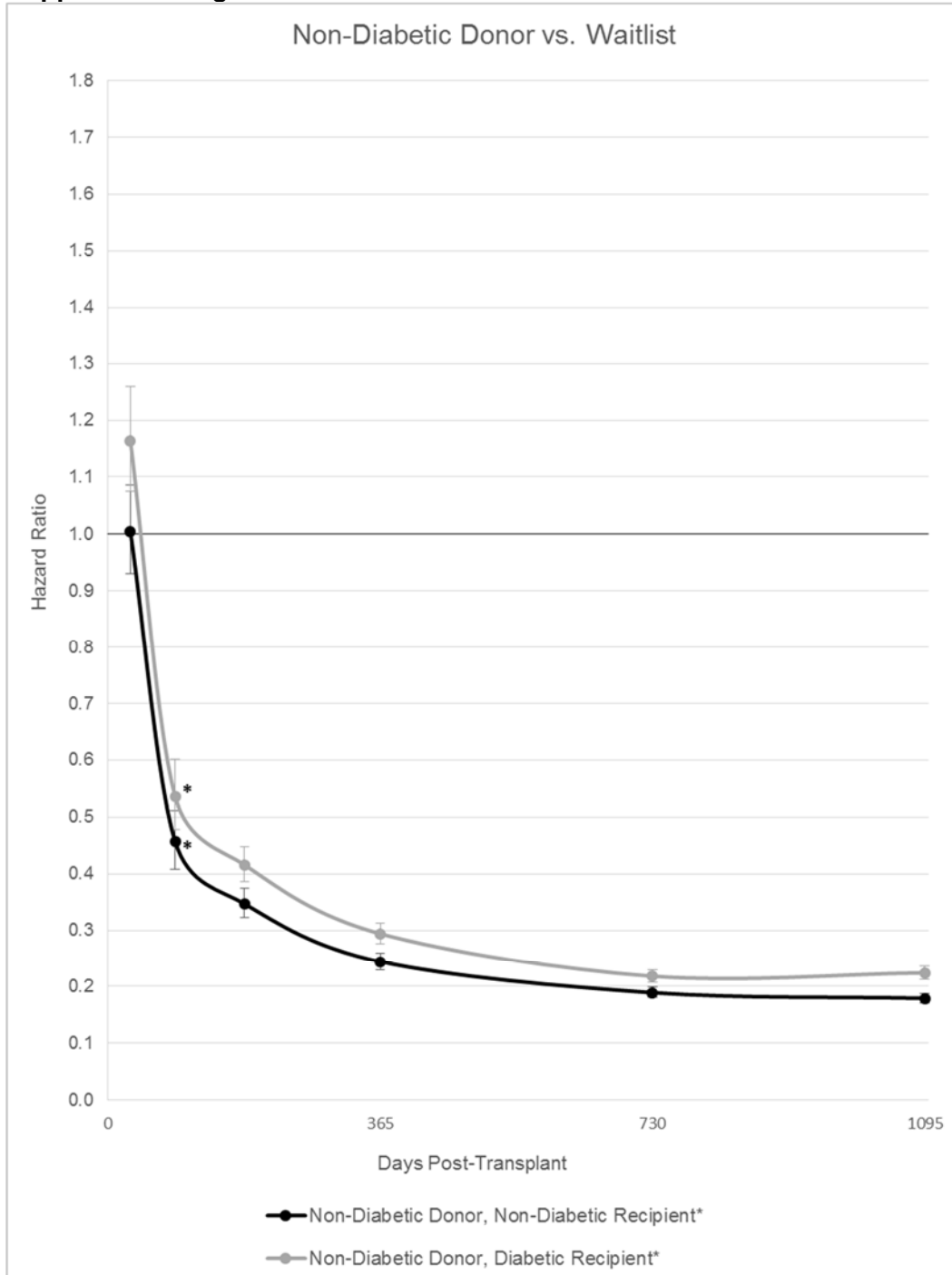


**Supplemental Figure 1b.**



\* Statistically significant difference between each tertile
† Statistically significant difference between each tertile
‡ Statistically significant difference between the first and third tertiles

**Supplemental Figure 2.** Hazard for mortality by post-transplant time-point among recipients of non-diabetic and diabetic donor kidneys compared to remaining on the waitlist.
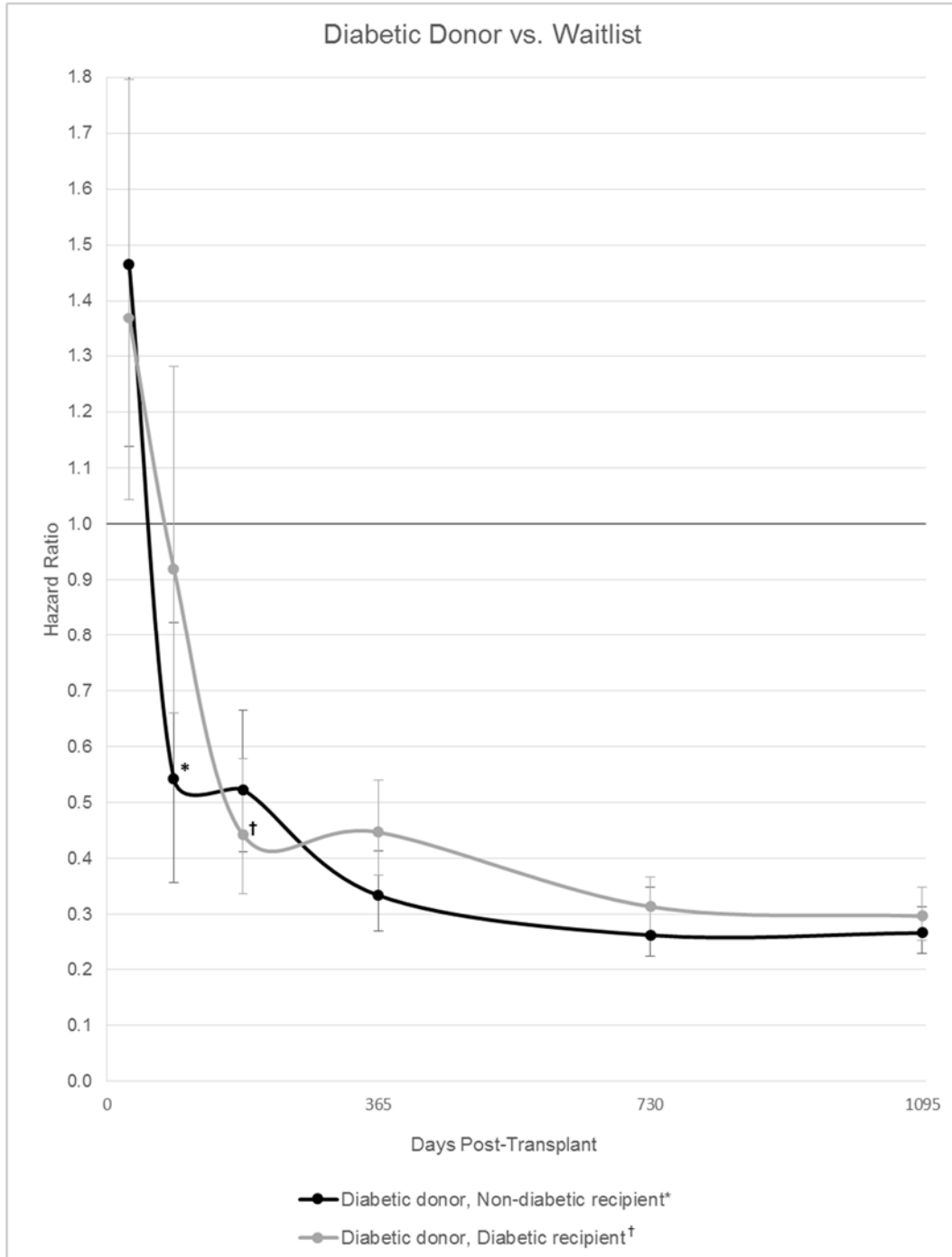
**Supplemental Figure 2a.**



Error bars indicate 95% confidence intervals
*First significantly lower hazard of mortality compared to remaining on the waitlist occurred at 90 days

**Supplemental Figure 2b.**



Error bars indicate 95% confidence intervals
*First significantly lower hazard of mortality compared to remaining on the waitlist occurred at 90 days
†First significantly lower hazard of mortality compared to remaining on the waitlist occurred at 183 days