

JUSTIFICATION FOR SUPPLEMENTAL TABLES

Both Supplemental Table 1 and Supplemental Table 2 expand on the inclusion and exclusion criteria used to conduct the analyses. A clear list of diabetes-related co-diagnoses and ICD-9-CM DM codes for types 1 and 2 diabetes will assist future research studies in the replication of and expansion on the current study. Supplemental Table 3 presents unadjusted and adjusted regression results comparing homeless minors with non-homeless minors. Presentation of unadjusted and adjusted results was recommended by the reviewers; due to the fact that the table became very large, we would like to present it as a supplemental table. Similarly, Supplemental Table 4 presents unadjusted and adjusted regression results comparing type 1 DM homeless minors with type 1 DM non-homeless minors, and Supplemental Table 5 presents unadjusted and adjusted regression results comparing type 2 DM homeless minors with type 2 DM non-homeless minors. Supplemental Table 6 displays sensitivity analysis results comparing homeless minors with non-homeless minors who reside in the lowest income quartile. Supplemental Table 7 displays sensitivity analysis results comparing type 1 DM homeless minors with type 1 DM non-homeless minors who reside in the lowest income quartile. Supplemental Table 8 displays sensitivity analysis results comparing type 2 DM homeless minors with type 2 DM non-homeless minors who reside in the lowest income quartile.

Supplemental Table 1. List of diabetes-related co-diagnoses**ICD-9-CM**

Code	Diagnosis
244.8	Other specified acquired hypothyroidism
244.9	Unspecified acquired hypothyroidism
242	Thyrotoxicosis with or without goiter
558.9	Other and unspecified noninfectious gastroenteritis and colitis
790.2	Abnormal glucose
251	Other disorders of pancreatic internal secretion
787	Symptoms involving digestive system
276	Disorders of fluid, electrolyte, and acid-base balance
707	Chronic ulcer of skin
366.0	Cataract
366.41	Diabetic cataract
436	Acute, but ill-defined, cerebrovascular disease
586	Renal failure, unspecified
584	Acute kidney failure
536	Disorders of function of stomach
290-319	Mental, behavioral, and neurodevelopmental disorders
577	Diseases of the pancreas
630-677, 679.0	Complication of pregnancy, childbirth, and the puerperium Diabetes mellitus in the mother, but complicating pregnancy, childbirth, or the
648.00-648.04	puerperium
682	Cellulitis
480-488	Pneumonia and influenza
590	Infections of the kidney
278.00-278.03	Overweight and obesity
962.3	Poisoning by insulins and antidiabetic agents
996.57	Mechanical complication due to insulin pump

Supplement Table 2. ICD-9-CM codes, type 1 & type 2 diabetes

Type 1 Diabetes		Type 2 Diabetes	
250.0	Diabetes mellitus		
250.01	Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled	250.00	Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled
250.03	Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled	250.02	Diabetes mellitus without mention of complication, type II, uncontrolled
250.1	Diabetes with ketoacidosis		
250.11	Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled	250.10	Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled
250.13	Diabetes with ketoacidosis, type I [juvenile type], uncontrolled	205.12	Diabetes with ketoacidosis, type II or unspecified type, uncontrolled
250.2	Diabetes with hyperosmolarity		
250.21	Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled	250.20	Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled
250.23	Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled	250.22	Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled
250.3	Diabetes with other coma		
250.31	Diabetes with other coma, type I [juvenile type], not stated as uncontrolled	250.30	Diabetes with other coma, type II or unspecified type, not stated as uncontrolled
250.33	Diabetes with other coma, type I [juvenile type], uncontrolled	250.32	Diabetes with other coma, type II or unspecified type, uncontrolled
250.4	Diabetes with renal manifestations		
250.41	Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled	250.40	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled

- 250.43 Diabetes with renal manifestations, type I [juvenile type], uncontrolled
- 250.5 Diabetes with ophthalmic manifestations**
- 250.51 Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled
- 250.53 Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled
- 250.6 Diabetes with neurological manifestations**
- 250.61 Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled
- 250.63 Diabetes with neurological manifestations, type I [juvenile type], uncontrolled
- 250.7 Diabetes with peripheral circulatory disorders**
- 250.71 Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled
- 250.73 Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled
- 250.8 Diabetes with other specified manifestations**
- 250.81 Diabetes with other specified manifestations, type I [juvenile type], not stated as controlled
- 250.83 Diabetes with other specified manifestations, type I [juvenile type], uncontrolled
- 250.9 Diabetes with unspecified complication**
- 250.42 Diabetes with renal manifestations, type II or unspecified type, uncontrolled
- 250.50 Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled
- 250.52 Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled
- 250.60 Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled
- 250.62 Diabetes with neurological manifestations, type II or unspecified type, uncontrolled
- 250.70 Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled
- 250.72 Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled
- 250.80 Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled
- 250.82 Diabetes with other specified manifestations, type II or unspecified type, uncontrolled

250.91 Diabetes with unspecified complication,
type I [juvenile type], not stated as
uncontrolled

250.93 Diabetes with unspecified complication,
type I [juvenile type], uncontrolled

250.90 Diabetes with unspecified complication,
type II or unspecified type, not stated as
uncontrolled

250.92 Diabetes with unspecified complication,
type II or unspecified type, uncontrolled

Supplement Table 3. Unadjusted and adjusted regression results for the effect of homeless vs. non-homeless status on hospital-related outcomes

	Unadjusted			Adjusted*			AIC [§] without homeless	AIC with homeless
	Estimate [†]	95%CI [‡]	P	Estimate [†]	95%CI [‡]	P		
In-hospital mortality								
Homeless	2.43	[0.00, 0.00]	.85	2.27	[0.20, 25.28]	.51	109	110
Non-homeless	REFERENCE			REFERENCE				
Emergency admission [¶]								
Homeless	1.50	[1.21, 1.86]	<.01	1.54	[1.23, 1.92]	<.01	11,947	11,934
Non-homeless	REFERENCE			REFERENCE				
Ketoacidosis								
Homeless	0.75	[0.58, 0.98]	.03	0.75	[0.59, 0.96]	.02	14,016	14,013
Non-homeless	REFERENCE			REFERENCE				
Hospitalization cost [#]								
Homeless	0.87	[0.78, 0.96]	<.01	0.88	[0.79, 0.97]	<.01	21,864	21,845
Non-homeless	REFERENCE			REFERENCE				
Length of stay ^{**}								
Homeless	1.43	[1.27, 1.60]	<.01	1.20	[1.08, 1.35]	<.01	46,279	46,270
Non-homeless	REFERENCE			REFERENCE				
DM2 ^{, ††}								
Homeless	3.99	[0.06, 0.08]	<.01	2.02	[1.20, 3.38]	<.01	7,525	7,520
Non-homeless	REFERENCE			REFERENCE				

*Models adjusted by age, race/ethnicity, sex, and insurance type

[†]Estimates presented as Odds Ratios (ORs), except length of stay, which is presented as an Incidence Rate Ratio (IRR), and hospitalization cost, which is presented as a Means Ratio.

[‡]Confidence Interval

[§]Akaike Information Criterion

^{||}Hierarchical multivariable logistic regression

[¶]Multivariable logistic regression

[#]Hierarchical multivariable log-transformed linear regression

^{**}Hierarchical multivariable negative binomial regression

^{††}Type 2 diabetes

Supplement Table 4. Unadjusted and adjusted regression results among type 1 DM homeless vs. non-homeless status on hospital-related outcomes

	Unadjusted			Adjusted*			AIC [§]	
	Estimate [†]	95%CI [‡]	<i>P</i>	Estimate [†]	95%CI [‡]	<i>P</i>	without homeless	AIC with homeless
In-hospital mortality								
Homeless	-	-	-	-	-	-	-	-
Non-homeless	REFERENCE			REFERENCE				
Emergency admission [¶]								
Homeless	1.79	[1.39, 2.30]	<.01	1.88	[1.45, 2.43]	<.01	10,329	10,305
Non-homeless	REFERENCE			REFERENCE				
Ketoacidosis [#]								
Homeless	1.05	[0.79, 1.40]	.74	0.77	[0.54, 1.09]	.14	12,565	12,564
Non-homeless	REFERENCE			REFERENCE				
Hospitalization cost ^{**}								
Homeless	0.90	[0.80, 1.01]	.08	1.06	[0.82, 1.03]	.17	18,630	18,630
Non-homeless	REFERENCE			REFERENCE				
Length of stay ^{††}								
Homeless	1.41	[1.24, 1.60]	<.01	1.22	[1.08, 1.37]	<.01	39,075	39,068
Non-homeless	REFERENCE			REFERENCE				

*Models adjusted by age, race/ethnicity, sex, and insurance type

[†]Estimates presented as Odds Ratios (ORs), except length of stay which is presented as an Incidence Rate Ratio (IRR), and hospitalization cost, which is presented as a Means Ratio.

[‡]Confidence Interval

[§]Akaike Information Criterion

^{||}In-hospital mortality omitted as outcome due to ≤10 cases

[¶]Multivariable logistic regression

[#]Hierarchical multivariable logistic regression

^{**}Hierarchical multivariable log-transformed linear regression

^{††}Hierarchical multivariable negative binomial regression

Supplement Table 5. Unadjusted and adjusted regression results among type 2 DM homeless vs. non-homeless status on hospital-related outcomes

	Unadjusted			Adjusted*			AIC [§] without homeless	AIC with homeless
	Estimate [†]	95%CI [‡]	P	Estimate [†]	95%CI [‡]	P		
In-hospital mortality								
Homeless	-	-	-	-	-	-	-	-
Non-homeless	REFERENCE			REFERENCE				
Emergency admission [¶]								
Homeless	0.85	[0.56, 1.31]	.47	0.74	[0.47, 1.14]	.17	1,639	1,639
Non-homeless	REFERENCE			REFERENCE				
Ketoacidosis [#]								
Homeless	0.70	[0.35, 1.38]	.30	0.70	[0.36, 1.34]	.28	1,387	1,388
Non-homeless	REFERENCE			REFERENCE				
Hospitalization cost ^{**}								
Homeless	0.77	[0.65, 0.92]	<.01	0.77	[0.65, 0.93]	<.01	3,200	3,190
Non-homeless	REFERENCE			REFERENCE				
Length of stay ^{††}								
Homeless	1.25	[1.00, 1.57]	.05	1.10	[0.87, 1.38]	.44	7,081	7,082
Non-homeless	REFERENCE			REFERENCE				

*Models adjusted by age, race/ethnicity, sex, and insurance type

[†]Estimates presented as Odds Ratios (ORs), except length of stay which is presented as an Incidence Rate Ratio (IRR), and hospitalization cost, which is presented as a Means Ratio.

[‡]Confidence Interval

[§]Akaike Information Criterion

^{||}In-hospital mortality omitted as outcome due to ≤ 10 cases

[¶]Multivariable logistic regression

[#]Hierarchical multivariable logistic regression

^{**}Hierarchical multivariable log-transformed linear regression

^{††}Hierarchical multivariable negative binomial regression

Supplement Table 6. Adjusted regression results for homeless vs. low income non-homeless status on hospital-related outcomes*

	Estimate [†]	95%CI [‡]	P	AIC [§] without homeless	AIC with homeless
In-hospital mortality					
Homeless	-	-	-	-	-
Non-homeless	REFERENCE				
Emergency admission[¶]					
Homeless	1.42	[1.04, 1.95]	.03	2,274	2,271
Non-homeless	REFERENCE				
Ketoacidosis[#]					
Homeless	0.71	[0.51, 0.98]	.04	2,755	2,752
Non-homeless	REFERENCE				
Hospitalization cost^{**}					
Homeless	0.74	[0.65, 0.83]	<.01	4,715	4,695
Non-homeless	REFERENCE				
Length of stay^{††}					
Homeless	1.14	[0.98, 1.32]	.08	10,057	10,056
Non-homeless	REFERENCE				
DM2^{#, **}					
Homeless	2.85	[0.84, 9.71]	.09	1,547	1,546
Non-homeless	REFERENCE				

*Models adjusted by age, race/ethnicity, sex, and insurance type

[†]Estimates presented as Odds Ratios (ORs), except length of stay which is presented as an Incidence Rate Ratio (IRR), and hospitalization cost, which is presented as a Means Ratio.

[‡]Confidence Interval

[§]Akaike Information Criterion

^{||}In-hospital mortality omitted as outcome due to ≤10 cases

[¶]Multivariable logistic regression

[#]Hierarchical multivariable logistic regression

^{**}Hierarchical multivariable log-transformed linear regression

^{††}Hierarchical multivariable negative binomial regression

^{**}Type 2 diabetes

Supplement Table 7. Adjusted regression results for type 1 DM homeless vs. low income non-homeless status on hospital-related outcomes*

	Estimate [†]	95%CI [‡]	P	AIC [§] without homeless	AIC with homeless
In-hospital mortality					
Homeless	-	-	-	-	-
Non-homeless	REFERENCE				
Emergency admission[¶]					
Homeless	1.87	[1.28, 2.74]	<.01	2,144	2,134
Non-homeless	REFERENCE				
Ketoacidosis[#]					
Homeless	0.79	[0.55, 1.12]	.18	2,655	2,655
Non-homeless	REFERENCE				
Hospitalization cost^{**}					
Homeless	0.78	[0.67, 0.90]	<.01	4,423	4,416
Non-homeless	REFERENCE				
Length of stay^{††}					
Homeless	1.22	[1.03, 1.44]	.02	9,432	9,429
Non-homeless	REFERENCE				

*Models adjusted by age, race/ethnicity, sex, and insurance type

[†]Estimates presented as Odds Ratios (ORs), except length of stay which is presented as an Incidence Rate Ratio (IRR), and hospitalization cost, which is presented as a Means Ratio.

[‡]Confidence Interval

[§]Akaike Information Criterion

^{||}In-hospital mortality omitted as outcome due to ≤ 10 cases

[¶]Multivariable logistic regression

[#]Hierarchical multivariable logistic regression

^{**}Hierarchical multivariable log-transformed linear regression

^{††}Hierarchical multivariable negative binomial regression

Supplement Table 8. Adjusted regression results for type 2 DM homeless vs. low income non-homeless status on hospital-related outcomes*

	Estimate [†]	95%CI [‡]	P	AIC [§] without homeless	AIC with homeless
In-hospital mortality					
Homeless	-	-	-	-	-
Non-homeless	REFERENCE				
Emergency admission [¶]					
Homeless	0.69	[0.39, 1.23]	.21	1,845	1,846
Non-homeless	REFERENCE				
Ketoacidosis [#]					
Homeless	0.39	[0.16, 0.95]	.04	2,091	2,088
Non-homeless	REFERENCE				
Hospitalization cost ^{**}					
Homeless	0.64	[0.51, 0.81]	<.01	3,623	3,611
Non-homeless	REFERENCE				
Length of stay ^{††}					
Homeless	0.98	[0.76, 1.27]	.90	7,407	7,409
Non-homeless	REFERENCE				

*Models adjusted by age, race/ethnicity, sex, and insurance type

[†]Estimates presented as Odds Ratios (ORs), except length of stay which is presented as an Incidence Rate Ratio (IRR), and hospitalization cost, which is presented as a Means Ratio.

[‡]Confidence Interval

[§]Akaike Information Criterion

^{||}In-hospital mortality omitted as outcome due to ≤ 10 cases

[¶]Multivariable logistic regression

[#]Hierarchical multivariable logistic regression

^{**}Hierarchical multivariable log-transformed linear regression

^{††}Hierarchical multivariable negative binomial regression