

## **Online-Only Supplementary Material**

### **Demographic Correlates of Short-Term Mortality among Youth and Young Adults with Youth-Onset Diabetes Diagnosed from 2002-2015: The SEARCH for Diabetes in Youth Study**

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Supplementary Table S1: Characteristics of the 20,150 Incident Diabetes Cases Diagnosed from 2002-2015 by Inclusion in the NDI Search: The SEARCH for Diabetes in Youth Study.

Supplementary Table S2: Demographic Characteristics of the 283 Decedents with Youth-Onset Diabetes Diagnosed from 2002-2015 that Died on or before 12/31/2017 by Diabetes Type: The SEARCH for Diabetes in Youth Study

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Supplementary Table S1: Characteristics of the 20,150 Incident Diabetes Cases Diagnosed from 2002-2015 by Inclusion in the NDI Search: The SEARCH for Diabetes in Youth Study.

	<b>Total</b>	<b>Sent to NDI for Linkage</b>	
		<b>No</b>	<b>Yes</b>
N	20,150	433	19,717
Age at Diagnosis, Mean (SD) yrs.	11.2 (4.7)	14.0 (4.5)	11.1 (4.6)
Age (on 12/31/17) Mean (SD) yrs.	20.0 (6.0)	27.1 (4.8)	19.8 (6.0)
Sex, N (%)			
Female	10155 (50.4)	220 (50.8)	9935 (50.4)
Male	9993 (49.6)	213 (49.2)	9780 (49.6)
Diabetes Type N (%)			
Type 1	14952 (74.2)	231 (53.3)	14721 (74.7)
Type 2	4312 (21.4)	171 (39.5)	4141 (21.0)
Secondary diabetes	555 (2.8)	4 (0.9)	551 (2.8)
Other/Unknown diabetes type	331 (1.6)	27 (6.2)	304 (1.5)
Race/Ethnicity N (%)			
Non-Hispanic White	11347 (56.3)	170 (39.3)	11177 (56.7)
Non-Hispanic Black	3670 (18.2)	94 (21.7)	3576 (18.1)
Hispanic	3514 (17.4)	16 (3.7)	3498 (17.7)
Asian/Pacific Islander	628 (3.1)	10 (2.3)	618 (3.1)
Native American	357 (1.8)	4 (0.9)	353 (1.8)
Other race	240 (1.2)	14 (3.2)	226 (1.1)
Unknown race/ethnicity	394 (2.0)	125 (28.9)	269 (1.4)
Year of Diagnosis, N (%)			
2002-2005	5278 (26.2)	317 (73.2)	4961 (25.2)
2006-2010	7209 (35.8)	104 (24.0)	7105 (36.0)
2011-2015	7663 (38.0)	12 (2.8)	7651 (38.8)

NDI , National Death Index SD, standard deviation

Supplementary Table S2: Demographic Characteristics of the 283 Decedents with Youth-Onset Diabetes Diagnosed from 2002-2015 that Died on or before 12/31/2017 by Diabetes Type: The SEARCH for Diabetes in Youth Study

	Diabetes Type			
	Type 1	Type 2	Secondary	Other/ unknown
Decedents, N	133	55	87	8
Age at Diagnosis, Mean (SD) yrs.	12.3 (4.1)	15.4 (3.0)	14.5 (3.6)	15.7 (3.5)
Age at Diagnosis, n (%) yrs.				
0-4	11 (8.3)	1 (1.8)	3 (3.4)	0
5-9	19 (14.3)	2 (3.6)	6 (6.9)	1 (12.5)
10-14	68 (51.1)	17 (30.9)	34 (39.1)	0
15-19	35 (26.3)	35 (63.6)	44 (50.6)	7 (87.5)
Sex , n (%)				
Female	58 (43.6)	21 (38.2)	57 (65.5)	5 (62.5)
Male	75 (56.4)	34 (61.8)	30 (34.5)	3 (37.5)
Race/Ethnicity, n (%)				
Non-Hispanic White	88 (66.2)	7 (12.7)	48 (55.2)	2 (25.0)
Non-Hispanic Black	22 (16.5)	27 (49.1)	23 (26.4)	2 (25.0)
Hispanic	19 (14.3)	11 (20.0)	11 (12.6)	3 (37.5)
Other/Unknown	4 (3.0)	10 (18.2)	5 (5.7)	1 (12.5)
Year of Diagnosis, n (%)				
2002-2005	76 (57.1)	34 (61.8)	37 (42.5)	3 (37.5)
2006-2010	36 (27.1)	14 (25.5)	38 (43.7)	3 (37.5)
2011-2015	21 (15.8)	7 (12.7)	12 (13.8)	2 (25.0)
Diabetes duration at death, Mean (SD), yrs.	7.4 (4.5)	6.6 (4.2)	4.4 (3.7)	3.9 (4.6)
Age at death, Mean (SD), yrs.	19.6 (5.5)	22.1 (5.0)	18.9 (5.0)	19.6 (6.6)
Age at death, n (%)				
< 15 years	20 (15.2)	2 (3.7)	16 (18.4)	1 (12.5)
15-19 year	50 (37.9)	15 (27.8)	36 (41.4)	4 (50.0)
20-24 year	40 (30.3)	23 (42.6)	25 (28.7)	1 (12.5)
25-29 year	20 (15.2)	11 (20.4)	10 (11.5)	2 (25.0)
30-34 year	2 (1.5)	3 (5.6)	0	0

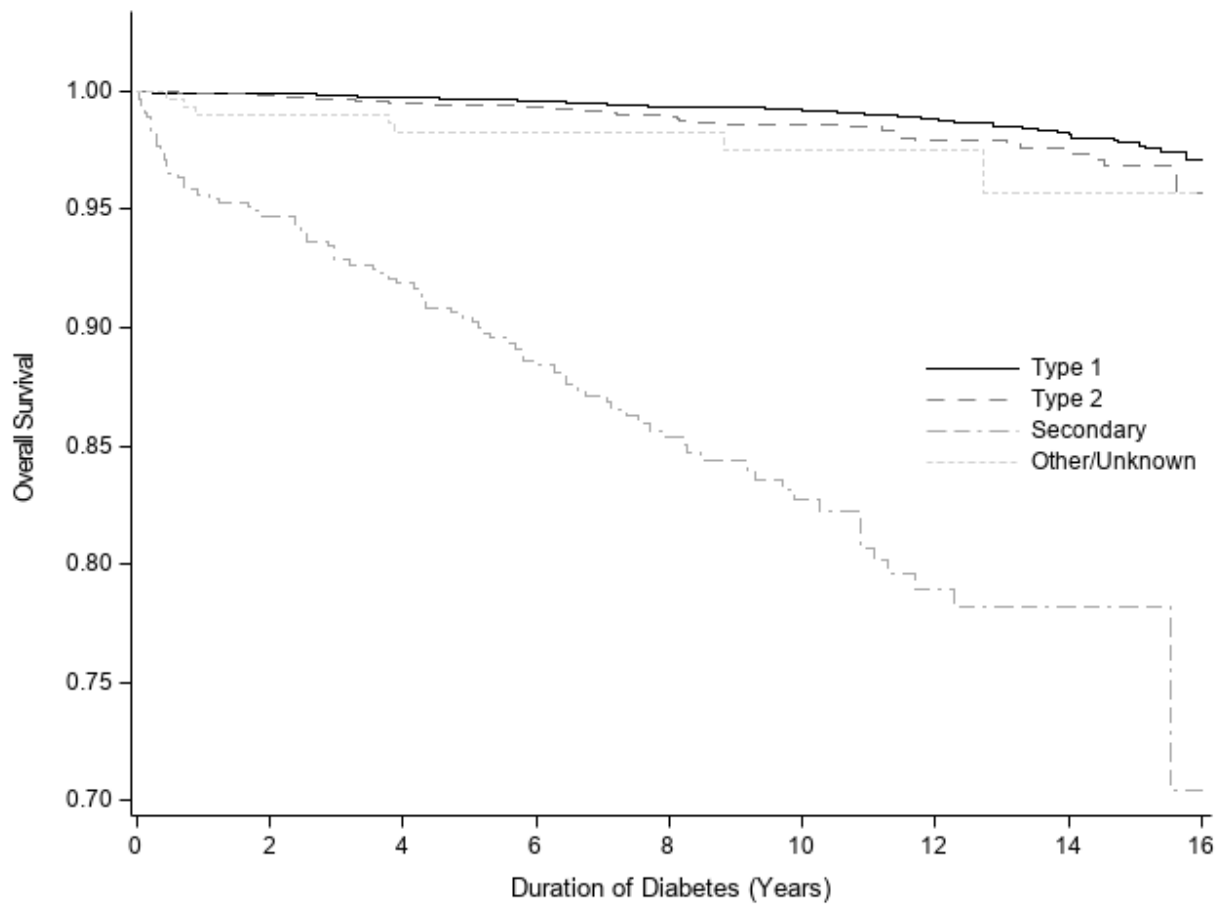
SD, Standard Deviation

Supplementary Table S3. Underlying Cause of Death for 188 Decedents for 2002-2015 Incident Diabetes Cases through 12/31/2017 with Type 1 or Type 2 Diabetes by Diabetes Type and Sex: The SEARCH for Diabetes in Youth Study

	ICD-10 codes	Type 1 Diabetes		Type 2 Diabetes	
		Female	Male	Female	Male
		N (%)	N (%)	N (%)	N (%)
Deaths from All Causes, N	--	58	75	21	34
<b>UNDERLYING CAUSE OF DEATH</b>					
Certain infection and parasitic disease	A00-B99	1 (1.7)	0 (0.0)	2 (9.5)	0 (0.0)
Cancer / neoplasms	C00-D48	0 (0.0)	1 (1.3)	2 (9.5)	4 (11.8)
Diseases of the blood and blood-forming organs	D50-D89	1 (1.7)	0 (0.0)	2 (9.5)	0 (0.0)
<b>Diabetes mellitus</b>	<b>E00-E14</b>	<b>23 (39.7)</b>	<b>33 (44.0)</b>	<b>2 (9.5)</b>	<b>3 (8.8)</b>
Metabolic disorders	E15-E99	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.9)
Mental and behavioral disorders	F01-F99	0 (0.0)	0 (0.0)	1 (4.8)	0 (0.0)
Diseases of the nervous system	G00-G98	6 (10.3)	2 (2.7)	2 (9.5)	2 (5.9)
Diseases of the circulatory system	I00-I99	5 (8.6)	1 (1.3)	1 (4.8)	4 (11.8)
Diseases of the respiratory system	J00-J98	2 (3.4)	0 (0.0)	1 (4.8)	1 (2.9)
Diseases of the digestive system	K00-K92	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.9)
Diseases of the musculoskeletal system and connective tissue	M00-M99	0 (0.0)	1 (1.3)	0 (0.0)	0 (0.0)
Diseases of the genitourinary system	N00-N98	1 (1.7)	0 (0.0)	0 (0.0)	1 (2.9)
Certain conditions originating in the perinatal period	P00-P96	0 (0.0)	1 (1.3)	0 (0.0)	0 (0.0)
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99	0 (0.0)	1 (1.3)	0 (0.0)	4 (11.8)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99	1 (1.7)	1 (1.3)	0 (0.0)	0 (0.0)
<b>External causes of morbidity and mortality</b>	<b>V00-Y89</b>	<b>17 (29.3)</b>	<b>32 (42.7)</b>	<b>8 (38.1)</b>	<b>11 (32.4)</b>
Unknown cause of death reported to study†	Unknown	1 (1.7)	2 (2.7)	0 (0.0)	2 (5.9)
<b>CONTRIBUTING CAUSE OF DEATH</b>					
Diabetes	E00-E14	6 (10.3)	8 (10.7)	2 (9.5)	5 (14.7)

†Reported as deceased by the family or medical care providers but were not matched due to non-linkage with the National Death Index.

Supplementary Figure S1. Time from Diagnosis to Death or Censor by Diabetes Type: The SEARCH for Diabetes in Youth Study



APPENDIX  
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