

Table 1a

Deaths Documented Before Hurricane Maria September 13, 2016 to March 31, 2017, Puerto Rico (N=16,860)

Characteristic	N	%
Male	9181	54.45
Age		
0-17 years	166	0.98
16-64 years	3866	22.93
65+ years	12810	75.98
Puerto Rican Origin	16068	95.35
Residence Zone		
Urban	8489	50.35
Rural	7969	47.27
Education		
High School or less, no diploma	9237	54.81
High School or GED	3329	19.75
Some College	695	4.12
College or More	3167	18.8
Type of Death		
Accident	527	3.13
Homicide	382	2.27
Natural	14736	87.52
Undetermined	1087	6.45
Suicide	105	0.62

Table 1b

Deaths Documented During and After Hurricane Maria September 13, 2017 to March 31, 2018, Puerto Rico (N=18,510)

Characteristic	N	%
Male	10157	54.87
Age		
0-17 years	106	0.57
16-64 years	4214	22.77
65+ years	14167	76.54
Puerto Rican Origin	17615	95.23
Residence Zone		
Urban	9471	51.17
Rural	8500	45.92
Education		
High School or less, no diploma	9734	52.62
High School or GED	3909	21.13
Some College	713	3.89
College or More	3549	19.2
Type of Death		
Accident	589	3.18
Homicide	416	2.25
Natural	16457	88.92
Undetermined	905	4.89
Suicide	141	0.76

Table 2
Death Incidence and Risk in the Six-Month Period Before (September 2016–March 2017)
and After Hurricane Maria (September 2017–March 2018) by Cause of Death

Major Cause of Death Category	Pre-Maria		Post-Maria		Difference	
	Incidence	6-month risk per 100,000	Incidence	6-month risk per 100,000	Incidence Difference	Risk Ratio (95% CI)
CVD	2656	78.9	3023	92.7	367	1.18* (1.12, 1.24)
Alzheimers	1205	35.8	1437	44.1	232	1.23* (1.14, 1.33)
Diabetes Mellitus	1766	52.5	1966	60.3	200	1.15* (1.08, 1.23)
Sepsis	409	12.2	566	17.4	157	1.43* (1.26, 1.62)
Chronic respiratory disease	864	25.7	985	30.2	121	1.18* (1.08, 1.29)
Hypertension	710	21.1	811	24.9	101	1.18* (1.07, 1.31)
End Stage Renal Disease	490	14.6	556	17.1	66	1.17* (1.04, 1.32)
Suicide	104	3.1	142	4.4	38	1.41* (1.09, 1.82)
COPD	624	18.5	656	20.1	32	1.09 (0.98, 1.22)
Mental Health Conditions	282	8.4	311	9.5	29	1.14 (0.97, 1.34)
Asthma	60	1.8	58	1.8	-2	1.00 (0.70, 1.43)
Cancer	2883	85.7	2757	84.6	-126	0.99 (0.94, 1.04)
ALL CAUSES	16860	500.9	18510	567.8	1650	

*Significant RRs comparing post-Maria incidence risk with pre-Maria incidence risk

Table 3***Death Counts Before and After Hurricane Maria by Cause of Death***

	Pre-Maria		Post-Maria		Difference
	Month	Count	Month	Count	
All Causes	Sep-16	1436	Sep-17	1939	503
	Oct-16	2362	Oct-17	3061	699
	Nov-16	2487	Nov-17	2690	203
	Dec-16	2859	Dec-17	2840	-19
	Jan-17	2903	Jan-18	2846	-57
	Feb-17	2317	Feb-18	2467	150
	Mar-17	2496	Mar-18	2667	171
	Total	16860	Total	18510	1650
Alzheimer's Disease	Sep-16	107	Sep-17	152	45
	Oct-16	151	Oct-17	259	108
	Nov-16	188	Nov-17	213	25
	Dec-16	223	Dec-17	222	-1
	Jan-17	203	Jan-18	205	2
	Feb-17	169	Feb-18	188	19
	Mar-17	164	Mar-18	198	34
	Total	1205	Total	1437	232
Asthma	Sep-16	6	Sep-17	7	1
	Oct-16	8	Oct-17	11	3
	Nov-16	6	Nov-17	7	1
	Dec-16	14	Dec-17	9	-5
	Jan-17	7	Jan-18	9	2
	Feb-17	11	Feb-18	5	-6
	Mar-17	8	Mar-18	10	2
	Total	60	Total	58	-2
COPD	Sep-16	45	Sep-17	60	15
	Oct-16	92	Oct-17	112	20
	Nov-16	80	Nov-17	97	17
	Dec-16	121	Dec-17	112	-9
	Jan-17	113	Jan-18	99	-14
	Feb-17	80	Feb-18	80	0
	Mar-17	93	Mar-18	96	3
	Total	624	Total	656	32
Cancer	Sep-16	247	Sep-17	288	41
	Oct-16	428	Oct-17	441	13
	Nov-16	435	Nov-17	413	-22
	Dec-16	464	Dec-17	396	-68

	Jan-17	423	Jan-18	431	8
	Feb-17	383	Feb-18	368	-15
	Mar-17	503	Mar-18	420	-83
	Total	2883	Total	2757	-126
CVD	Sep-16	247	Sep-17	308	61
	Oct-16	367	Oct-17	511	144
	Nov-16	390	Nov-17	417	27
	Dec-16	444	Dec-17	491	47
	Jan-17	459	Jan-18	428	-31
	Feb-17	367	Feb-18	432	65
	Mar-17	382	Mar-18	436	54
	Total	2656	Total	3023	367
Chronic Respiratory Disease	Sep-16	69	Sep-17	111	42
	Oct-16	113	Oct-17	142	29
	Nov-16	129	Nov-17	137	8
	Dec-16	173	Dec-17	147	-26
	Jan-17	151	Jan-18	177	26
	Feb-17	116	Feb-18	125	9
	Mar-17	113	Mar-18	146	33
	Total	864	Total	985	121
Diabetes Mellitus	Sep-16	159	Sep-17	252	93
	Oct-16	224	Oct-17	318	94
	Nov-16	240	Nov-17	286	46
	Dec-16	322	Dec-17	288	-34
	Jan-17	322	Jan-18	302	-20
	Feb-17	260	Feb-18	242	-18
	Mar-17	239	Mar-18	278	39
	Total	1766	Total	1966	200
End Stage Renal Disease	Sep-16	44	Sep-17	56	12
	Oct-16	63	Oct-17	95	32
	Nov-16	77	Nov-17	69	-8
	Dec-16	79	Dec-17	84	5
	Jan-17	89	Jan-18	87	-2
	Feb-17	73	Feb-18	85	12
	Mar-17	65	Mar-18	80	15
	Total	490	Total	556	66
Hypertension	Sep-16	48	Sep-17	97	49
	Oct-16	99	Oct-17	153	54
	Nov-16	109	Nov-17	111	2
	Dec-16	115	Dec-17	115	0
	Jan-17	133	Jan-18	125	-8
	Feb-17	92	Feb-18	100	8
	Mar-17	114	Mar-18	110	-4

	Total	710	Total	811	101
Mental Health Conditions	Sep-16	17	Sep-17	44	27
	Oct-16	43	Oct-17	47	4
	Nov-16	38	Nov-17	52	14
	Dec-16	53	Dec-17	42	-11
	Jan-17	53	Jan-18	50	-3
	Feb-17	41	Feb-18	39	-2
	Mar-17	37	Mar-18	37	0
	Total	282	Total	311	29
	Sepsis	Sep-16	34	Sep-17	74
Oct-16		56	Oct-17	97	41
Nov-16		52	Nov-17	96	44
Dec-16		60	Dec-17	71	11
Jan-17		85	Jan-18	95	10
Feb-17		53	Feb-18	60	7
Mar-17		69	Mar-18	73	4
Total		409	Total	566	157
Suicide		Sep-16	6	Sep-17	14
	Oct-16	17	Oct-17	23	6
	Nov-16	15	Nov-17	27	12
	Dec-16	14	Dec-17	22	8
	Jan-17	27	Jan-18	13	-14
	Feb-17	8	Feb-18	19	11
	Mar-17	17	Mar-18	24	7
	Total	104	Total	142	38