



# Department of Public Health

*Monroe County, New York*

**Adam J. Bello**  
*County Executive*

**Michael D. Mendoza, MD, MPH, MS**  
*Commissioner of Public Health*

February 2, 2023

Dear Superintendent:

Winter weather in Rochester can be tough, and at times, even dangerous. Deciding on when to close schools based on temperature is never easy. As the research on this subject has changed through the years, I have provided you with information to assist in this decision.

The National Weather Service (NWS) issues **ADVISORIES** when wind chills of  $-15^{\circ}\text{F}$  are predicted, and **WARNINGS** at  $-25^{\circ}\text{F}$ . We have consulted with them on many occasions, but they do not make recommendations as to when schools should close based upon temperature or wind chill. The New York State Education Department also does not issue such guidance, so communities are on their own to make this important decision. While Health Departments have no legal authority on when to close schools due to weather conditions, we believe it is our role to make recommendations on such health matters.

Temperatures can vary within Monroe County and therefore among school districts. For instance, wind chill temperatures along the lakeshore can be very different than in downtown Rochester. So the question remains: "How cold is too cold to have school?" Unfortunately, there is not a simple answer to this question. As noted in the attached chart, frostbite can occur on exposed skin in about 30 minutes at wind chills of  $-25^{\circ}\text{F}$ . At wind chills of  $-40^{\circ}\text{F}$ , frostbite can affect exposed skin in as little as 10 minutes.

Local meteorologists typically forecast a range of temperatures. They will often use language such as "we are expecting wind chill temperatures of  $-25^{\circ}\text{F}$  to  $-35^{\circ}\text{F}$  in the morning." Wind chills this low can be dangerous depending on how children are dressed, whether students have to walk long distances to school, if children have long waits for the bus, etc. **Taking everything into consideration, to lessen the risk of cold injury to students, I recommend that you use a wind chill of about  $-25^{\circ}\text{F}$  as the temperature to consider closing schools.**

I am very much aware of the impact of closing schools. We receive calls from parents each winter on this subject. We discuss the issue with them, but remind them that this is a school decision. I hope you find this information to be useful.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. Mendoza".


Michael D. Mendoza, MD, MPH, MS  
Commissioner of Public Health





## Temperature (°F)

Wind (mph)	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5		36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10		34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15		32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20		30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25		29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30		28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35		28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40		27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45		26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50		26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55		25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60		25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

**Frostbite Times**

 30 minutes

 10 minutes

 5 minutes

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01