



Department of Public Health

Monroe County, New York

Cheryl Dinolfo
County Executive

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

November 1, 2018

Dear Superintendent:

Winter weather in Monroe County can be tough and, at times, even dangerous. Deciding on when to close schools based on temperature is never easy. The Monroe County Department of Public Health has monitored temperature research through the years and has regularly shared this information with local school districts to assist with this decision.

The National Weather Service issues **ADVISORIES** when wind chills of -15°F are predicted, and **WARNINGS** at -25°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°F. At wind chills of -40°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°F to -35°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°F as the temperature to consider closing schools.**

We have posted links to several Web sites that have credible information on winter weather (including the wind chill chart) on our website so you can easily locate this information when you need it. Visit us at: www2.monroecounty.gov/health-index.php.

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,

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



Wind Chill Chart



| | | Temperature (°F) | | | | | | | | | | | | | | | | | |
|------------|----|------------------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Calm | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | 0 | -5 | -10 | -15 | -20 | -25 | -30 | -35 | -40 |
| Wind (mph) | 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