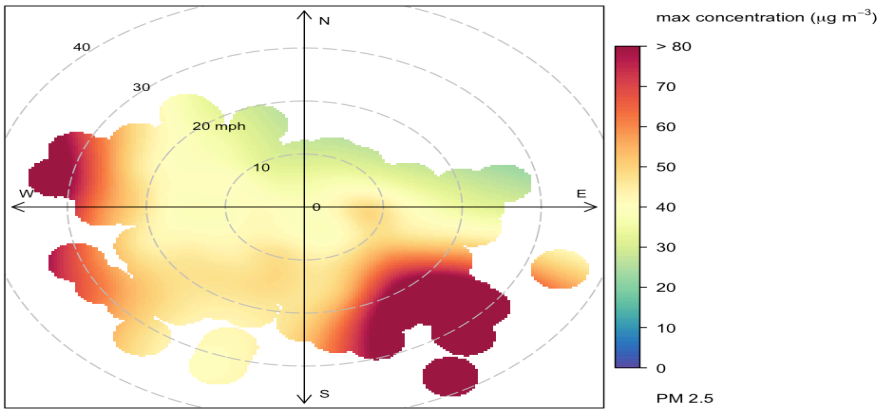
Counselor Chapter HIA

Counselor is a Navajo community in the path of aggressive oil development in northwest New Mexico, The Chapter Health Impact Assessment Committee (HIA) is monitoring air quality and reporting cultural impacts, health, and safety concerns to the Navajo Nation, Bureau of Land Management, N.M. State Legislature and U.S. Congress. (Photo by Mike Eisenfeld)

There are >600 chemicals used in oil and gas production that vary by well and production phases. Four common indicators: Volatile Organic Compounds (VOCs,) Particulate Matter ($PM_{2.5}$), hydrogen sulfide, and formaldehyde, are used as measures of toxicity from well emissions. If these indicators are present in air samples it is likely other chemicals of concern are present.

Plot Map of Hazardous concentrations of PM $_{2.5}$ at Counselor Chapter House (32 day period)

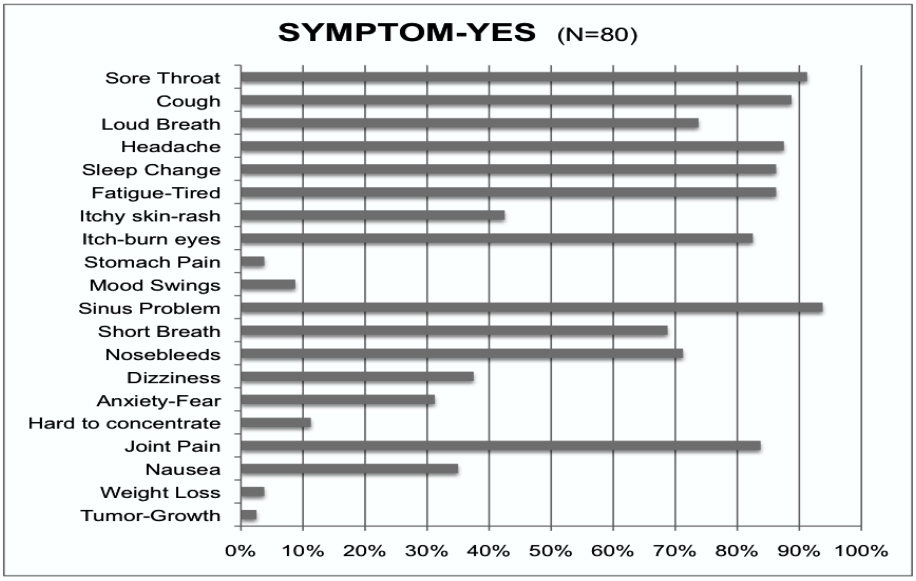


Air Quality Index

Blue – Green GOOD
Yellow MODERATE
Orange UNHEALTHY Sensitive Groups (elders, children, asthma patients)
Red VERY UNHEALTHY
Dark Red HAZARDOUS
Inhabited structure is in center of plot map.

Formaldehyde level: 0.0097 ppm
Threshold to consider action-
ATSDR level (8 hours): 0.0030 ppm

Counselor Chapter residents surveyed (80 respondents) reported health symptoms associated with exposure to oil and gas well emissions, at levels well above the national average (40-50%) for residents living near oil fields in other states. 84% lived within 5 miles of one or more active wells.



According to the Endocrine Disruption Exchange an examination of the toxicity of 353 chemicals used in fracking found that:

- 25% can cause cancer and mutations
- 37% affect the endocrine system
- 40-50% affect the brain, kidneys and immune and cardiovascular system
- >75% affect the skin, eyes and respiratory and gastrointestinal systems

Not all wells emit the same chemicals.

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