

**Comments on the
Integrated Science Assessment
for Oxides of Nitrogen – Health Criteria
(Second External Review Draft)**

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Table 1: Asthma HA/ED Visit Study Quality Characteristics

Citation	Study Design			Pollutant		Exposure Assessment			Outcome Assessment		Confounding by Co-pollutants			Other Confounders				Statistical Methods	
	Design	Single vs. Multi-city	Size/ Duration ¹	NO, NO ₂ , NO _x	Comparisons Between Oxides	Central Site Monitoring	Spatial Variability Assessed	Comparison of Exposure Assessment Methods	Type of Outcome	Exclusion of Children < 2 Years Old	Traffic-related Pollutants Assessed	Correlations Reported	Relative Measurement Error in Co-pollutants Discussed	Meteorology	Day of Week	Season	Allergens	Cautious Interpretation of Multi-pollutant Models	Sensitivity Analysis: Alternate Model Specification
Strickland <i>et al.</i> (2010)	Green	Red	Red	Green	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Villeneuve <i>et al.</i> (2007)	Green	Red	Green	Green	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red
Jalaludin <i>et al.</i> (2008)	Green	Red	Red	Green	Red	Red	Red	Red	Red	Green	Green	Red	Green	Green	Green	Red	Green	Green	Red
Ito <i>et al.</i> (2007)	Green	Red	Red	Green	Red	Red	Green	Red	Red	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
Iskandar <i>et al.</i> (2012)	Green	Red	Red	Green	Green	Red	Green	Red	Red	Green	Red	Red	Green	Green	Green	Red	Green	Green	Green
ATSDR and NYSDOH (2006)	Green	Red	Red	Green	Red	Red	Green	Red	Red	Green	Red	Red	Green	Green	Green	Red	Green	Green	Green
Stieb <i>et al.</i> (2009)	Green	Red	Red	Green	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green
Samoli <i>et al.</i> (2011)	Green	Red	Red	Green	Red	Red	Green	Red	Red	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
Peel <i>et al.</i> (2005)	Green	Red	Red	Green	Red	Red	Green	Green	Red	Green	Red	Red	Green	Green	Green	Red	Green	Green	Green
Son <i>et al.</i> (2013)	Green	Green	Red	Green	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green
Ko <i>et al.</i> (2007)	Green	Red	Red	Green	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
Sarnat <i>et al.</i> (2013b)	Green	Red	Red	Green	Red	Red	Green	Green	Red	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green
Orazio <i>et al.</i> (2009)	Green	Red	Red	Green	Red	Red	Green	Red	Red	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green
Strickland <i>et al.</i> (2011)	Green	Red	Green	Green	Red	Red	Green	Green	Green	Green	Red	Green	Green	Green	Green	Red	Red	Green	Green
Li <i>et al.</i> (2011)	Green	Red	Green	Green	Red	Red	Red	Red	Green	Green	Green	Red	Green	Green	Green	Red	Red	Green	Green
Gass <i>et al.</i> (2014)	Green	Red	Green	Green	Red	Red	Red	Red	Green	Green	Red	Red	Green	Green	Green	Red	Red	Green	Red
Winqvist <i>et al.</i> (2014)	Green	Red	Red	Green	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green
Burnett <i>et al.</i> (1999)	Green	Red	Green	Green	Red	Red	Red	Red	Red	Green	Green	Red	Green	Green	Green	Red	Red	Green	Green
Linn <i>et al.</i> (2000)	Green	Red	Red	Green	Red	Red	Green	Red	Green	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green
Burra <i>et al.</i> (2009)	Green	Red	Green	Green	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green
Sinclair <i>et al.</i> (2010)	Green	Red	Red	Green	Red	Red	Red	Red	Red	Green	Green	Red	Green	Green	Green	Red	Red	Green	Green
Tolbert <i>et al.</i> (2000)	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green	Red	Green	Green	Green	Red	Red	Green	Green
Jaffe <i>et al.</i> (2003)	Green	Green	Red	Green	Red	Red	Red	Red	Green	Red	Green	Red	Green	Green	Green	Red	Red	Red	Red

Legend	
	Criterion Met
	Criterion Not Met
	Listed in ISA as a High Quality Study