

THE RELATIONSHIP OF INCREASED MOOD ALTERATIONS AND INDUSTRIAL WIND TURBINES:

Implications and Social Justice

WindVOiCe

(Wind Vigilance for Ontario Communities)

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Industrial wind turbine projects became operational in rural Ontario, Canada in 2005. Within a short period of time, residents near the projects reported noticing adverse health effects. By 2008, reports of health problems became more common and had been associated with the advent of Industrial Wind Turbines. In some cases Ontario families have abandoned their homes to protect their health.

Government vigilance and long term surveillance programs for industrial wind turbines do not exist in Canada. Volunteers in various affected communities organized and funded an Ontario-based vigilance health survey to capture and document the array of adverse health effects being reported. Reports are now being received from other jurisdictions.

Wind Vigilance for Ontario Communities (WindVOiCe) is a community based self-reporting health survey based on the principles of Health Canada's Canada Vigilance Program designed to monitor suspected drug reactions. This survey is ongoing.

WindVOiCe respondents report altered quality of life. Sleep disturbance is the most common health complaint. Other symptoms include but are not limited to inner ear problems, cardiac concerns, and headaches.

Respondents report in the comments section of the survey, anger, frustration, and loss of cognitive functions such as inability to concentrate, 'foggy thinking' and short term memory loss. Depression anxiety and stress are common.

118 Respondents ¹²

Altered quality of life	Altered health	Sleep disturbance	Stress	Anxiety	Depression
109	104	85	77	62	47

The symptoms of adverse health effects reported are consistent with other surveys and research conducted by clinicians such as Harry , Pierpont⁴, Nissenbaum⁵.

Parents have responded on behalf of their children and indicated adverse reactions such as vomiting, nausea, nose bleeds and headaches.

118 Respondents ^{6,7}

Headache	Migraines	Excessive tiredness	Palpitations	Tinnitus / Hearing Problems	Approached physician
71	14	90	38	59 / 37	44

In the comments section of the survey some respondents describe their emotional toll. They describe disturbed living conditions, loss of enjoyment of their homes and property, and financial loss due to the negative impact to the health of their families which further contributes to increased stress levels.

Informal discussions with respondents indicate some family members grieve deeply. These include those who suffer adverse health effects, those who had to abandon their homes, and those who had to sign non-disclosure agreements as a condition of a buy out of their homes by the wind developer. They feel victimized by the very systems that normally would protect them. The lack of social justice hurts deeply.



A self-reporting survey: adverse health effects with industrial wind turbines and the need for vigilance March/July/September 2009

#	Age	Gender	Occupation	Distance from turbine	Time at property	Health altered	Headaches	Palpitations	Excessive tiredness	Stress	Anxiety	Tinnitus	Hearing problems	Sleep disturbance	Migraines	Depression	Other	Approached doctor	Altered quality of life	
1	54	f	farmer	800	30.5	No	No	No	No	No	No	No	No	No	No	No	No	n/a	Yes	
2	56	f	farmer	800	31	No	No	No	No	No	No	No	No	No	No	No	No	n/a	Yes	
3	56	m	farmer	800	35	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
4	43	f	homemaker	800	34	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
5	43	f	cmi	1200	45	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
7	50	m	self empl	800	49	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	Yes	
8	53	m	farmer	950	52	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	
9	n/a	m	farmer	1000	8	Yes	No	No			Yes	Yes	Yes			No	No	No	Yes	
12	63	m	retired	717	32	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	
13	60	f	retired	717	32	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	
16	47	f	ed Asst.	1600	20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
17	47	m	truck driver	1600	20	unsure	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
18	28	f	teacher	717	18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	
19	29	f	soc. Worker	717	vis	Yes	Yes	No	No	Yes	No	Yes	No	No	No	No	No	No	Yes	
21	50	f	sales	457	4	Yes	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	
22	52	m	self empl	457	4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	
23	26	f	graphic designer	800	26	No					Yes	Yes	Yes						Yes	
24	59	f	retired	700	13	Yes	Yes	No	Yes	Yes			Yes	Yes	No		Yes	Yes	Yes	
27	31	m	farm	3500	2	No								Yes	Yes	No		Yes	Yes	
33	53	m	truck driver	1200	30		No	Yes	No	No	Yes	Yes	Yes	No	No	No	No	No	Yes	
34	53	f	farmer	1200	30	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	
38	50	m	farmer	350	10	Yes	Yes	No	No	No	Yes	No	No	No	No	No	No	No	Yes	
39	71	f	retired	983	3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
40	67	m	retired	548	30	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
41	67	f	retired	548	30	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
44	65	f	retired	n/a	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
45	24	m	police officer	800	11	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No	Yes	
46	22	m	engineer	808	11	Yes	Yes	No	No	Yes	No	Yes	No	No	No	No	No	No	Yes	
47	19	f	student	808	19	Yes	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	
48	21	f	student	808	0.25	Yes	Yes	No	Yes	Yes	No	Yes	No	No	No	No	No	No	Yes	
49	53	f	teacher	808	11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	
50	51	m	carpenter	808	11	Yes	Yes	No	Yes	Yes	No	Yes	No	No	Yes	No	Yes	No	Yes	
51	45-60	m	technician	1000	26	Yes									Yes				Yes	
52	45-60	f	homemaker	close	21	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
54	53	m	ems	1000	0.67	No													Yes	
58	68	m	ret'd farmer	650	39	Yes	Yes				Yes	Yes	Yes					No	Yes	
59	42	m	bus/farmer	1000	19	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No			Yes	Yes	
60	60	f	retired	750	10	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
61	45-60	m	manager	500	20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
62	30-45	f	food prep	500	20	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	
65	>60	m	farmer	450	45	Yes	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	
66	>60	m	farmer	650	62	No													Yes	
67	56	f	homemaker	unclear	30	Not sure					Yes							Yes	No	
68	45-60	f	retired	1300	32	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
69	36	m	firefighter	550	5	Yes	No	No	Yes	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes	
70	39	f	sales	550	5	Yes	Yes	No	Yes	No	Yes	Nos	Yes	Nos	No				Yes	
71	30-45	f	access control	704	5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
72	30-45	m	millwright	700	2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
73	70	f	homemaker	800	37	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes			Yes	Yes	
74	44	f	unemployed	400	10	Maybe		Yes				Yes						Yes	Yes	
75	43	m	electrician	400	43	Maybe		Yes			Yes		Yes					Yes	Yes	
76	44	f	farmer's assistant	n/a	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
77	>60	m	retired	<1000	30pr/12ft	Yes											Yes	No	Yes	
78	65	m	retired	800	6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
79	63	f	teacher	800	6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
80	79	f	retired	600	5	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	
81	58	f	farmer	1100	33	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
82	68	m	farmer	1100	33	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
83	45-60	f	healthcare	600	22	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	
84	>60	m	electrician	600	22	Yes	No	No	Yes	No	No	No	Yes	No	No	Yes	No	Yes	Yes	
85	45-60	m	retired	573	25	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
86	59	m	farmer	800	22	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
87	46	m	mechanic	360	46	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
88	45-60	f	bookkeeper	<500	23	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
89	45-60	?	45-60	<500	14	Yes	Yes	No	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	
90	69	m	retired	450	20	Yes	No	No	Yes	Yes	No	No	No	No	No	No	No	No	Yes	
91	66	m	retired	1000	31	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
92	32	f	student	500	1	Yes	Yes	No	Yes	No	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
93	46	f	homemaker	600	visitor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	n/a	
94	68	m	retired	500	16	Yes	No	No	No	No	Yes	No	No	No	No	No	No	No	Yes	
95	71	m	retired	500	16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
96	51	f	housewife	700	17	Yes	"	"	"	"	"	"	"	"	"	"	"	"	No	Yes
97	46	m	retail	700	17	Yes	"	"	"	"	"	"	"	"	"	"	"	"	No	Yes
98			retired	2000	27	No													No	Yes
99	44	m	exec director	5000	11	Yes	No	Yes	Yes	Yes	No	No	Yes	No	No			Yes	Yes	
100	39	m	admin assistant	5000	11	maybe	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	maybe	
101	62	m	trucker	900	10	Yes	No	Yes	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	
102	62	m	carpenter	500	years	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
103	68	m	retired	750	11	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	
106	45-60	f	hairedresser	400	20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
107	52	f	Med. Secretary	600	13	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
108	44	m	Carpenter	482	5	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	
109	36	f	Administration	482	1(visitor)	Yes	Yes	No	Yes	Yes	No	Yes	No	No	No	Yes	Yes	No	Yes	
110	60	f	teacher	800	1	Yes	No	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	No	Yes	
111	62	m	builder	800	1	Yes	Yes	Yes	Yes	Yes</										

A SNAPSHOT OF COMMENTS FROM RESPONDENTS (ONTARIO)

Number 003

“Feel no [one] cares or believes us.”

Number 004

“Our finances are not as good because of living in two places. All family events including Christmas has not been in our family home. No one should have this happen to them. We were fine before the wind farms came.”

Number 005

“The damage that has been done to my body – scares me what will happen in the future... A very uncertain future!!”
We have discouraged our two daughters and son-in law from visiting. They have also experienced health issues when visiting.

Number 019

“I am unable to come home to visit my parents as often as I would like. Due to my parents ongoing adverse health effects I feel discouraged.... My childhood home no longer feels like a place to relax ...in a peaceful environment. I am sick over what the turbines have done to my family & community.”

Number 021

“My house is worth nothing now. I could never sell it. Angry, sad, disillusioned, exhausted.”

Number 024

“Because I have a conflict of interest, I am not signing my name but I do not want anyone else to suffer as we did for 8 or 9 months.”

Number 040

“I now live on drugs that don't seem to help.”

Number 046

“Because of this I do not want to stay in our home or for that matter come home. the biggest change has been the effect on my Mom, sister and Dad's health, especially Mom. To see her suffering from health problems, getting sicker and sicker just pisses me off. It really bothers me a lot.”

Number 047

“My family has been ripped apart with Mom not able to live at home. Not having Mom around to talk to about school or friend and personal stuff has been and is hard. Very hard.”

Number 049

“We did not invite the Grand mothers over to visit much or stay over due to the concern for their health... We send love over the phone or on message sheets on the counter.”

“Lost total faith in government to safeguard myself, my family and other Ontario families. I do not trust the word or intentions of experts compared to before Nov. 2007.”

Number 051

“The visual impact of the navigation lights has had a profoundly negative effect on our night sky. In the day-time the obvious industrialization of our landscape adds to this demoralization.”

Number 052

“The blinking red lights at night just depresses me and ticks me off. I might as well be at an airport landing strip. The same goes when I just look around.”

Number 060

“It is the responsibility of the wind turbine company and/or Hydro One to ensure that their life and health returns to pre wind turbine quality.”

Number 069

“The rear of our house is all windows, at night all you see is the warning lights. It is driving me crazy. We had no say in the mills because we weren't getting one. The persons that got them get paid and don't live near them.”

Number 077

“It is equally disturbing to know that our politicians and so called “leaders” have such blatant disregard for individual lives. This is also applicable to so called neighbours.”

Number 079

“...our plans to retire here are on hold and may need to change”

Number 085

“...flicker issues at certain times of day on house walls inside & reflections on windows”

Number 088

“Now all I see is flickering blades and blinding red lights. The sunsets have disappeared into money hungry pockets of our government.”

“I now am a prisoner in my own home of 23 years.”

Number 089

“My various levels of gov't has deserted me and ignore my concerns.”

“This is not the future I had planned when I invested my energy, time and money in this place.”

“I choose to live here for what it was, not what it has become.”

Number 101

“My doctor does not understand the situation.”

Number 106

“I cannot go a day without thinking about Wind Turbines. They are everywhere you look, noisy, lights flashing.”

Number 108

I had, and still have a hard time understanding how this could have happened without me knowing... A modern day David and Goliath. The giant(s) win again... I no longer look forward to coming home...”

Number 109

“It is difficult when you want to visit your loved ones, however, you know that you are going to an environment that will cause you harm. Not a choice anyone should have to make!”

Number 110

“...feel violated... we trusted township and [wind company]”

Number 115 - Young Child

Form completed by parent

“[Child's name] describes “bees” in his ears – I believe ringing ringing from W.T. s.[wind turbines]”

[approached doctor] ...does not have knowledge of WTS but has heard some comments from local public health.”

[sleep disturbance] sleeps but does not seem rested.

“I feel both my children are “different” in their behaviour – two happy, well-behaved children have become irritable and unreasonable w/temper and agitation... This is compounded by the fact that my husband and I are affected and sleep deprived and I imagine have lower patience, tolerance and are irritable also.”

Number 117

“I just want to move.”

Number 119

“Our anguish is great. We feel betrayed. There is no help. This is our home, our refuge, but we can hardly stand to be here.”

8) See comments section: A self-reporting survey: adverse health effects with industrial wind turbines and the need for vigilance July 2010 www.windvigilance.com



Ontario family sleeps in tent to escape wind turbine Low Frequency Noise.