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Air Pollution Associated with Perception of Increased Health Risks for People Living with Disabilities in Utah

Bosede Adejugbe, Gabriele Ciciurkaite, Sydney O'Shay, & Jessica D. Ulrich-Schad

Air quality is one of the top environmental concerns for Utahns today¹. Health risks associated with air pollution can range from mild physiological impacts to death from cardiovascular and respiratory disease²⁻⁴. Little is known about the ways that environmental risks impact people with disabilities because they are often excluded from clinical and social science research⁶. Gaining a more robust understanding of air pollution's impacts on people living with disabilities (PLWD) is particularly important considering that PLWD comprise about 32.2%⁵ of the U.S. population and 22% of Utah's population, the latter of which is a younger population compared to the average¹.

Because of their underlying health conditions and difficulties in performing routine tasks⁷, PLWD may have fundamentally different perceptions about and experiences with air pollution when compared to their non-disabled counterparts. Policies and programs aimed at reducing environmental-related risks also often neglect PLWD. People with mobility impairments, for instance, may not always be able to find shelter or navigate their way inside their own shelters during air pollution-related emergencies, and those who are blind may not have equitable access to warning notifications. More so, planners ought to put forth extra effort to make sure PLWD are included in community environmental risk research and planning, yet, this is frequently overlooked^{8,9}.

In this brief, we used data from the 2023 Utah People and Environment Poll ([UPEP](#)) to examine how Utahns living with and without disabilities perceive risks related to air pollution and how both population groups are able to navigate these risks. Considering the voices of PLWD in all aspects of risk reduction and collecting and publishing data on disability in research projects will aid in identifying, addressing, and preventing disparities across various population groups⁸.

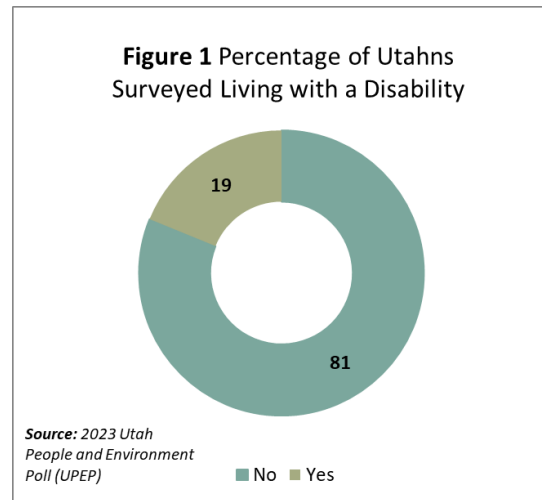
KEY FINDINGS

- In a representative statewide survey, 19% of respondents indicated that they are currently living with a disability.
- Seven out of ten Utahns think that having a disability can lead to unequal experiences with environmental risks.
- People living with a disability (PLWD) feel they are more likely to experience health concerns from air pollution in the next year and next 10 years compared to people living without a disability.
- Less than one-quarter of PLWD are extremely confident that they can avoid outdoors and limit driving and about two-fifths are extremely confident they can get air purifier when air quality is poor.



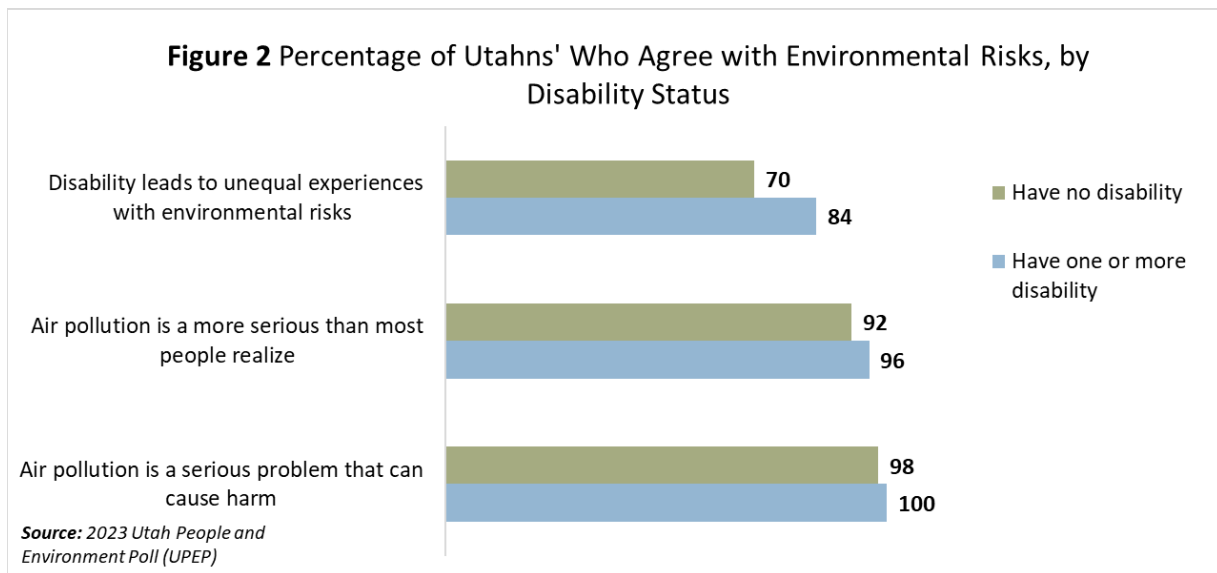
About One in Five Utahns are Living with a Disability

The UPEP included six questions asking respondents if they currently have difficulty hearing; seeing; concentrating, remembering, and making decisions; climbing stairs; bathing; or difficulty in doing errands alone¹⁰. We found that 19% of respondents have one or more types of disability, while 81% do not identify as having a disability (see Figure 1), close to what has been found with other data sources¹. In the remainder of the brief, we compare those with one or more disabilities to those with none.



Most Utahns Are Worried About Air Pollution, but Especially Those Living with a Disability

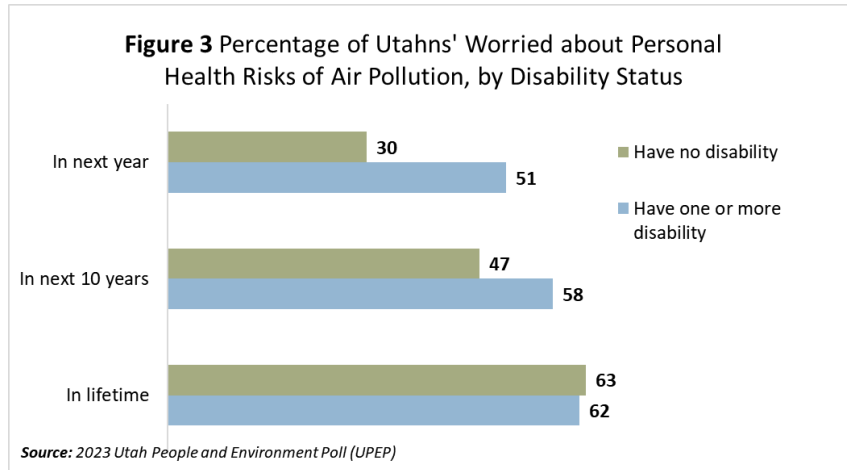
Survey respondents were asked about their perceptions of risks related to environmental issues, specifically air pollution, including their thoughts on whether 1) disability can lead to unequal experiences with environmental issues, 2) air pollution is a serious problem that can cause harm, and 3) air pollution is a more serious problem than most people think (see Figure 2). We found that 84% of PLwD think that people with disabilities have unequal experiences with environmental risks as compared to 70% of those without a disability. Slightly more of PLwD (96%) than people living without a disability (92%) also agreed that air pollution is a more serious problem than most people think. More so, all respondents with disabilities (100%) agreed that air pollution can cause harm in comparison to 98% of those without disabilities.





Utahns Are Worried About the Health Risks of Air Pollution, Especially Long-term

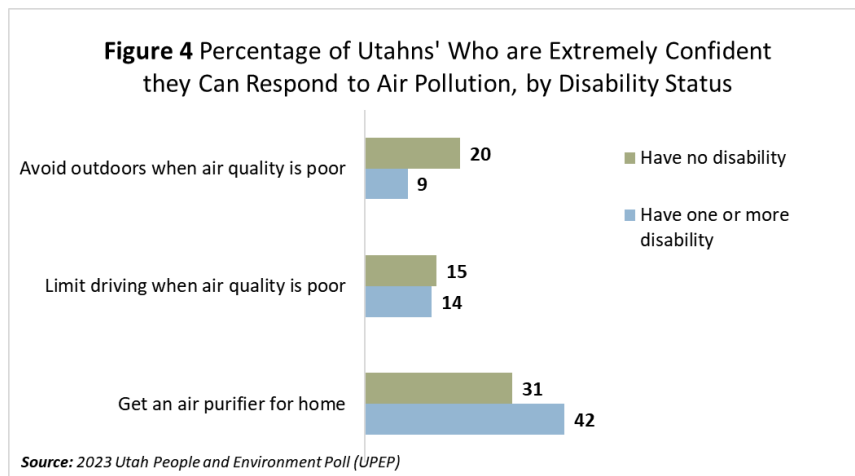
Respondents were asked whether they think they are likely to experience health concerns from air pollution in the next year, in the next ten years, or in their lifetime (see Figure 3). We found that PLWD were more likely to have health concerns from air pollution risks in Utah with 51% thinking they will experience health concerns in the next year compared to



only 30% of their non-disabled counterparts. While 58% of PLWD expressed health concerns from air pollution risks for the upcoming ten years, 47% of the non-disabled Utahns said the same. There was little difference, however, between the two groups regarding whether they would experience health concerns from air pollution in their lifetime.

Utahns are Not Extremely Confident in their Ability to Respond to Air Pollution, Especially People Living with a Disability

Respondents were asked about their confidence in being able to respond to the impacts of air pollution by taking specific actions (see Figure 4). We found that only 9% of PLWD were extremely confident they can avoid outdoors when air quality is poor compared to 20% for non-disabled individuals. The percentage of PLWD who were extremely confident they can limit driving when air



is poor (14%) was about the same as people without a disability (15%). Forty-two percent of PLWD were extremely confident they can get an air purifier for their home when air quality is poor, as compared to about one-third (31%) of those without a disability. Overall, PLWD in Utah feel less confident in their ability to take some actions to address issues related to air pollution compared to those without disabilities, except when it comes to the use of air purifiers.



Policy Implications

Our findings reveal that PLwD in Utah tend to be more concerned about being impacted by environmental risks than their non-disabled counterparts^{7,9}. Perhaps the most important finding is that despite the majority agreeing that they perceive air pollution as a health risk, few are extremely confident that they can act to avoid the risks associated with poor air, particularly avoiding the outdoors and limiting driving. Therefore, the Utah state government and policymakers should not only acknowledge that air pollution poses environmental risks, but also recognize that these risks disproportionately affect different population groups, particularly those who are disadvantaged, such as those living with disabilities. We also recommend that concerted policy and planning efforts focus on the means through which PLwD can more easily navigate through poor air quality, especially in times when they are alone or need help. The state government should promote awareness and campaigns to educate the public and caregivers about how PLwD are at higher risk associated with poor air quality, provide community-based services such as transportation to safe locations, and have evacuation plans to assist PLwD to places where they can take safe refuge during episodes of poor air quality.

Data and Methods

In spring 2023, Utah State University (USU) faculty and students started the Utah People and Environment Poll, or UPEP, to track Utahns' perceptions on environmental issues of importance to the state to help inform policy to address environmental issues. A random sample of 3,750 households were contacted using postal mail to respond to the survey online or on paper. 441 individuals responded to the survey for a final total response rate of 12%. Weights for survey design and to adjust for age, education, and gender representation are applied. To access other briefs and learn more about the UPEP, please visit:

<https://chass.usu.edu/sociology/canri/upep>

About CANRI

The Community and Natural Resources Institute, or [CANRI](#), produces and promotes interdisciplinary and applied social science and humanities research focused on challenges at the intersection of people and the environment in the Intermountain West.

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