

Evaluation of the children's environmental health network's environmental stewardship checklist responses ^[1]

Author: Gilden, R.; McElroy, K.; Friedman, E.; Witherspoon, N. O.; Paul, H.

Source: Journal of Environmental Health

Publication Date: 1 Mar 2015

AVAILABILITY

Full text (pdf) ^[2]

Gilden, R., McElroy, K., Friedman, E., Witherspoon, N. O., Paul, H. (2015). Evaluation of the children's environmental health network's environmental stewardship checklist responses. *Journal of Environmental Health*, 77(7), 22-28.

Abstract

Children are subject to multiple hazards on a daily basis, including in child care facilities. Research has shown that children in the child care setting may be exposed to lead, radon, pesticides, and multiple chemicals that are associated with known or suspected adverse health effects. The authors' study used an existing environmental health endorsement program to describe current practices of child care facilities as related to environmental health and safety. The facilities varied greatly in size and were located mainly in the U.S. with a few from Canada and Australia. A few checklist items had nearly a 100% positive response rate; however, some of the items had more than 10% of the facilities answer "false" or "don't know." Although many areas exist in which these sampled child care facilities are being environmentally responsible, further education is needed, particularly as related to the use of wall-to-wall carpeting, radon testing, aerosols, and air fresheners.

Introduction

Childhood is a time of rapid physical and developmental growth. Chemical exposures during this time period can disrupt normal growth and development, causing damage that may last a lifetime and could even affect future generations (Bearer, 1995; Landrigan, Kimmel, Correa, & Eskenazi, 2004). According to the National Association of Child Care Resources and Referral Agencies (NACCRRRA), "Nearly 11 million children under age five in the U.S. are in some type of child care setting every week. On average, the children of working mothers spend 35 hours a week in such care. About one-third of these children are in multiple child care arrangements so that parents can meet the need for child care during traditional and nontraditional working hours (NACCRRRA, 2013)." In order to decrease childhood exposures to harmful substances, efforts must be made at home, in school, and in child care centers, which was the focus of our study.

Multiple harmful exposures have been detected in child care facilities. Studies of exposures in these facilities have found elevated levels of pesticides, which are associated with adverse neurodevelopmental and reproductive effects, as well as childhood cancers and cancers that develop later in life (Cohen, 2007; Cohen Hubal, Egeghy, Leovic, & Akland, 2006; Morgan et al., 2011; Tolve et al., 2006). Lead exposure is also a problem in child care facilities (Greenway & Gerstenberger, 2010). Lead may cause irreversible damage to the liver, kidneys, cardiovascular system and has been found to affect neurologic development in children, even at low levels of exposure (Bellinger, 2008; Greenway & Gerstenberger, 2010). Other chemicals, including brominated flame retardants and polychlorinated biphenyls, have been detected in child care facilities (Harrad et al., 2010). These chemical exposures have been associated with cancer and neurodevelopmental problems and may adversely affect reproduction in the form of decreased spermatogenesis (Harrad et al., 2010). Radon, one of the leading causes of lung cancer, can also be found in child care facilities (Laquatra, Maxwell, & Pierce, 2005). Finally, children in child care facilities are exposed to various asthmagens, including volatile organic compounds (Zuraimi & Tham, 2008), mold (Laquatra et al., 2005), and other triggers (Salo, Sever, & Zeldin, 2009).

Despite the research being done to identify exposures in the child care setting, little is known about the current practices of child care facilities to decrease harmful exposures. This information is necessary to guide the development of education programs aimed at management and staff in the child care field and to inform policy changes at the center, state, and federal levels. The purpose of our study was to describe current levels of environmental stewardship practices by child care facilities and to identify areas for which additional education or technical assistance may be warranted.

Region: International ^[3]

Tags: health and safety ^[4]

Links

[1] <https://childcarecanada.org/documents/research-policy-practice/15/03/evaluation-children%E2%80%99s-environmental-health-network%E2%80%99s>

[2] [https://cehn.org/files/Gilden et al_March2015_EHCChecklistAnalysis.pdf](https://cehn.org/files/Gilden%20et%20al_March2015_EHCChecklistAnalysis.pdf) [3] <https://childcarecanada.org/category/region/international> [4]

<https://childcarecanada.org/category/tags/health-and-safety>