

Children's Health Protection Advisory Committee

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December 8, 2016

Administrator Gina McCarthy
United States Environmental Protection Agency
1200 Pennsylvania Ave, NW
Washington, DC 20460

RE: Agricultural Worker Protection Standards: CHPAC Recommendations for Outreach to Protect Children

Dear Administrator McCarthy:

The Children's Health Protection Advisory Committee (CHPAC) commends the Environmental Protection Agency (EPA) for its continuing efforts to protect children from harmful exposure to agricultural chemicals by strengthening the Agricultural Worker Protection Standards (WPS). We appreciate that new WPS requirements address several of CHPAC's 2005 recommendations that will further protect children's health¹ (see attachment). Thank you for the opportunity to lend our clinical and public health expertise to WPS implementation.

The new WPS contains many very positive changes, including an increase in the frequency of required pesticide safety training for workers and pesticide handlers from every five years to annually, a prominent focus on reducing take-home exposure, and the establishment of a minimum age of 18 years old for pesticide handlers and early-entry workers. We believe that these changes will help protect women of reproductive age, children of farmworkers, and children who work on farms. In this letter, CHPAC responds to EPA charge questions and offers additional guidance on key audiences, approaches, and content for WPS outreach.

In general, CHPAC encourages EPA to work with environmental health literacy specialists, culturally informed translators, and experts in graphic design to formatively test and enhance content, readability, appeal, and effectiveness of WPS outreach messages prior to public dissemination. Key messages need to be practical and appropriate to the relevant domestic activity or agricultural task. EPA should partner with credible, culturally informed, local organizations to deliver WPS health messages to diverse audiences. Although the "immediate family" of farm owners are exempt from many of the requirements of WPS, we strongly encourage EPA to include them in their outreach efforts.

¹ Recommendations Regarding Protecting Farmworker Children from Exposure to Pesticides. Letter from CHPAC to Stephen Johnson, EPA Administrator, November 2005.

Farmworkers are often a difficult population to reach because of the migratory nature of much of the work, low literacy, and cultural and language barriers. In the interest of maximizing effectiveness, CHPAC recommends that EPA's Office of Pesticide Programs (OPP) augment WPS outreach efforts by partnering with other programs that reach farmworkers (e.g. by the National Institute for Occupational Safety and Health (NIOSH), the US Department of Labor (USDOL), Migrant Head Start, the US Department of Agriculture (USDA), Women Infants and Children (WIC), etc.). Such coordination will serve to amplify and disseminate WPS messages while also reinforcing other key messages important to the health and safety of farmworkers and their families.

Charge Question 1: What children's environmental health messages or approaches to messaging does CHPAC advise will be effective in all/some parts of the worker protection regulation implementation plan? [This is especially important for the key children's health components of the standard: minimum age restrictions and expansion of training content to cover take home exposures.]

CHPAC concurs with the new minimum age requirements and recommends that outreach emphasize that younger workers are at increased risk when handling pesticides because of their greater susceptibility to toxicants and their limited experience and judgement working around pesticides and spray equipment. CHPAC recommends that OPP partner with the National Children's Center for Rural and Agricultural Health and Safety (NCCRAHS), the Safety in Agriculture for Youth (SAY) project at USDA, and the NIOSH Childhood Agricultural Injury Prevention Initiative to develop messaging on this important new minimum age requirement.

CHPAC recommends that children's health messages in the implementation plan be short, simple, straightforward, and appropriate for low-literacy and non-English speaking persons. The context in which the workers and their families live, work, and play must be considered so that messages are relevant, credible, and feasible to comply with. For example, instructing workers to remove and leave their shoes outside their homes would not be feasible for workers who fear their shoes might be stolen. Likewise, instructing children not to play in potentially contaminated fields or irrigation ditches without proposing other safe places to play is not practical. Finally, we believe that delivering a limited number of short messages that are well-tailored to the audience is a better strategy than a multitude of messages or lengthy details. With regard to message content, CHPAC recommends the following three concepts be incorporated in a culturally informed manner into all outreach materials:

1. Pesticides are toxic: they can cause acute or chronic toxicity. Some pesticides can be persistent and toxic—even in small amounts. Families and children may not show symptoms right away. In the short-term, an exposed person may have a rash or wheezing, and in the long-term, the cumulative effect of small amounts of various chemicals in our bodies may have very serious impact, such as neurological problems, reduced intelligence, and risk for certain cancers or other diseases. Families should know that we do not have all the science yet available to determine which pesticides are the direct cause of disease, but the evidence is accumulating that pesticides may have an effect in our bodies and contribute to disease in exposed persons and their offspring.

2. It is especially important to protect vulnerable life stages from pesticide exposure. Reproductive age women, fetuses, infants, and children should be protected from pesticide exposure because the developing brain and body are particularly sensitive to pesticides. A fetus may become exposed through the placenta and infants may be exposed through breastfeeding. Children play close to the ground, they put things in their mouths, and they have immature body systems, all of which contribute to an increased risk of exposure during their vulnerable years of rapid growth and development. Children, especially those who can contribute to the family's economy by helping in the fields or on the ranch, should be protected from contact with pesticides at home and in the fields.

3. There are practical and effective ways to protect children from exposure to farm pesticides. The best environment for growing children is one with no contact with pesticides. Because most farmworkers must work around pesticides, they should take evidence-based steps to protect themselves and their families, such as: appropriately wearing and removing required personal protective equipment at work; carefully cleaning their hands, clothing, and shoes with soap and clean water after work; periodically vacuuming personal vehicles; and carefully cleaning their food so as little of the pesticide as possible remains. Outreach should clearly demonstrate the correct procedures for washing hands, cleaning food, and laundering work clothes.

Charge Question 2: Are there key audiences for the children's health messages that are potentially untapped under the current worker protection regulation implementation plan? If yes, identify the key audiences. How should EPA approach implementation with these audiences?

CHPAC believes there are untapped key audiences and therefore recommends that the following key audiences be included for targeted children's health messages:

- Children who work on farms or live in agricultural communities. The messages should be simple and limited to a few important points. Three such points might include washing hands often, washing fruits and vegetables with water before eating them, and asking children to not play in the fields, irrigation systems, or irrigation mist.
 - Messages that target school children working on farms, particularly 13 and 14 year old boys who make up a large portion of these children, should be developed for posting in schools, including after-school programs. Messages for younger children should be disseminated in early childhood education settings (ECE).
 - Written messages should incorporate graphics and photos, be eye-catching, and also available through social media.
- Parents and family members of child farmworkers, especially mothers. The messages should be simple, visual, and only include the most important points.
- Farm owners, "Immediate family members", and unpaid volunteers who do not fall under the WPS training requirements. Outreach should emphasize the importance of protecting their family members even though it is not a requirement in the WPS. Other important messages are the vulnerability of children, potential persistence of pesticides on clothes and shoes, potential dermal absorption of pesticides via bare feet or shoes that are not water-resistant, and the potential to bring pesticides into the home on work clothes and shoes. See Charge 3 for additional suggestions.
- Farmworker contractors and farm managers. Outreach should be extended to those who hire, supervise, or train workers covered by WPS.
- Indigenous and migrant farmworker communities. Outreach should consider video trainings for workers without written language abilities.
- Local and national non-profit organizations, local merchants, and faith communities.
- Clinician networks and healthcare providers with farmworker patients and their families. This should include migrant clinic networks and WIC clinics in agricultural areas.
- School settings, including staff/teachers of Migrant Head Start, Parent Teacher Associations (PTAs), other early childhood education settings, school nurses, and school-based health centers.
- Radio stations and TV stations in agricultural areas.
- State officials involved with compliance of the WPS requirements. Messages should bring awareness to conditions in temporary housing, limited laundry and shower facilities, and lack of access to clean and safe water that can result in pesticide exposure.

CHPAC recommends that EPA use the National Agricultural Workers Survey or other suitable demographic data to prioritize languages for translation of WPS materials. OPP should ensure that translations take into account cultural differences, such as the variations in the meaning of words and phrases used across different Latin American countries.

For dissemination, we support OPP's existing partnership with the Association of Farmworker Opportunity Program, and recommend further partnerships with non-profits and government agencies including: USDOL's Migrant and Seasonal Farmworker Monitor Advocate System program, National Farm Medicine Center, NCCRAHS, Association for Occupational and Environmental Clinics, American College of Occupational and Environmental Medicine, AgriSafe Network, NIOSH-funded Agricultural Health and Safety Centers, Farmworker Justice, National Center for Farmworker Health, United Farmworkers, Migrant Legal Services, and the National Institute of Environmental Health Sciences (NIEHS).

Charge Question 3: The issue of protecting the children of family farmers was discussed at the CHPAC plenary meeting; what does CHPAC advise as useful messages to farm families on children's environmental health concerns?

Farmer's children, grandchildren, and individuals covered by the expanded definition of the "immediate family" are not covered by the enhanced protections afforded to other agricultural workers under the new WPS yet they are a vulnerable population. CHPAC recommends that messaging be specifically directed to farm families to assure that their understanding and voluntary compliance can match or exceed those protected by the WPS. The previous WPS educational materials depict adults, primarily agricultural workers and pesticide handlers in action. CHPAC recommends that OPP develop new messages and images that depict children in WPS posters, training pamphlets, and videos.

In outreach to farm families, CHPAC recommends that OPP:

- Create an "ALL CHILDREN" message that emphasizes the equal opportunity for exposure of both farmworker and farm-family children in agricultural communities.
- Create messages to highlight the vulnerability of reproductive age women.
- Create short, simple, and clearly written information that points to the evidence of acute or chronic/cumulative exposure and potential harm of pesticides.
- Develop short, vivid, and visual prevention messages that clearly identify secondary exposure to infants and children through take-home exposure pathways.
- Promote voluntary adherence to the new "application exclusion zone" to protect extended family from pesticide drift.
- Highlight the importance of proper pesticide storage to keep children safe (such as keeping chemicals in their original labeled containers and inaccessible to children).
- Emphasize that farm pesticides are not safe to use indoors unless they are specifically labeled for indoor residential use.
- Seek opportunities to reach women from farm families (e.g. mothers and grandmothers) with child-focused environmental health messages.
- Disseminate messages through extension agencies, state departments of agriculture, local grower groups, and at meetings where EPA compliance materials are shared.

Charge Question 4: What advice does CHPAC have for EPA to address the children's health content of OPP outreach materials?

OPP outreach efforts should concentrate on delivery of simple, culturally informed, and actionable information that is easily understood by children and families. The social determinants of health

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impact community outreach, health literacy, and community response to health messages. Information development should take into account principles of basic health literacy and capacity to understand and use health information to meet both individual and family health needs. The “health literacy burden” resulting from the gap between complex health information and low literacy can be a powerful impediment to the efficacy of outreach materials and can be an important moderator of health disparities. CHPAC recommends that materials be produced for low literacy audiences at a third grade reading level and feature culturally informed images and photographs to communicate to persons with no literacy in any language.

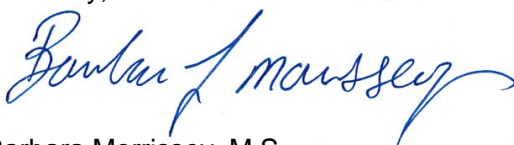
Knowledge is important but not sufficient to create change. In order to increase the likelihood that exposure prevention behaviors will be implemented by workers and their families, the OPP outreach effort should engage stakeholders at every stage of messaging, which will help assure cultural relevance and identify barriers to education of farmworkers and farm families.

We recommend a multimedia approach to disseminate WPS outreach materials, including the Internet and social media platforms. While farmworker populations may not have reliable access to the Internet, cell phones represent a nearly ubiquitous technology infrastructure that is inexpensive, convenient, accessible, and easy to use. Mobile technology infrastructure presents an opportunity to disseminate WPS outreach materials via text messaging. Additionally, graphic novels or “fotonovelas” can convey ideas better than conventional prose; concise text paired with detailed images help readers decode and comprehend the text. This medium is particularly effective for those with low literacy levels, including those of lower socioeconomic status and children who are at high risk for health disparities. Finally, EPA needs to test outreach messages with target audiences before release and take into account their likely effects and impacts.

Thank you again for this opportunity for input. CHPAC appreciates the critical improvements to the WPS that will help protect children, women of reproductive age, and farm families from the harmful effects of pesticides. We hope our comments help improve the health protection messages and approaches taken to deliver these messages.

We look forward to your response and to hearing about your progress as the WPS outreach plan is implemented.

Sincerely,



Barbara Morrissey, M.S.
Chair

Attachment

Appendix: CHPAC Letter Protecting Farmworker Children from Exposure to Pesticides,
November 2005

cc: Ruth A. Etzel, Director, Office of Children’s Health Protection
Martha Berger, Acting Director, Program Implementation and Coordination Division, Office of Children’s Health Protection
Michael Firestone, Senior Scientist, Office of Pesticide Programs
Jim Jones, Assistant Administrator, Office of Chemical Safety and Pollution Prevention
Jack Housenger, Director, Office of Pesticides Programs

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Kevin Keaney, National Programs Manager, Pesticide Worker Safety Programs, Office of
Pesticide Programs

Nancy Fitz, Chemical Engineer, Office of Pesticide Programs

Jacqueline Mosby, Director, Field and External Affairs Division, Office of Pesticide Programs

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