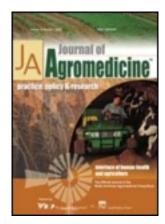
This article was downloaded by: [Marshfield Clinic]

On: 10 April 2012, At: 09:32 Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer

House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Agromedicine

Publication details, including instructions for authors and subscription information: $\underline{\text{http://www.tandfonline.com/loi/wagr20}}$

Developing the 2012 National Action Plan for Protecting Children in Agriculture

Barbara C. Lee PhD $^{\rm a}$, Susan S. Gallagher MPH $^{\rm b}$, Amy K. Liebman MPA, MA $^{\rm c}$, Mary E. Miller RN, MN $^{\rm d}$ & Barbara Marlenga PhD $^{\rm a}$

^a National Farm Medicine Center and National Children's Center for Rural and Agricultural Health and Safety, Marshfield, Wisconsin, USA

Available online: 10 Apr 2012

To cite this article: Barbara C. Lee PhD, Susan S. Gallagher MPH, Amy K. Liebman MPA, MA, Mary E. Miller RN, MN & Barbara Marlenga PhD (2012): Developing the 2012 National Action Plan for Protecting Children in Agriculture, Journal of Agromedicine, 17:2, 88-93

To link to this article: http://dx.doi.org/10.1080/1059924X.2012.660437

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.tandfonline.com/page/terms-and-conditions

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

^b Tufts University School of Medicine, Department of Public Health and Community Medicine, Boston, Massachusetts, USA

^c Migrant Clinicians Network, Salisbury, Maryland, USA

^d Washington State Department of Labor and Industries, Olympia, Washington, USA

Copyright © Taylor & Francis Group, LLC ISSN: 1059-924X print/1545-0813 online DOI: 10.1080/1059924X.2012.660437



EXECUTIVE SUMMARY

Developing the 2012 National Action Plan for Protecting Children in Agriculture

Barbara C. Lee, PhD Susan S. Gallagher, MPH Amy K. Liebman, MPA, MA Mary E. Miller, RN, MN Barbara Marlenga, PhD

ABSTRACT. In 1996 the US launched a National Childhood Agricultural Injury Prevention Initiative, guided by an action plan generated by a 42-member multidisciplinary committee. A major update to the plan was released following the 2001 Summit on Childhood Agricultural Injury Prevention. From the year 2010 through 2011 a comprehensive assessment of progress to date was conducted followed by the drafting, review and finalizing of a new action plan—"The 2012 Blueprint for Protecting Children in Agriculture." This paper briefly describes the purpose and process for generating the new action plan then provides a listing of the 7 goals and 26 strategies within the plan. These goals and strategies account for trends in childhood agricultural injuries, changes in agricultural production and the demographics of its workforce, effectiveness of interventions, and the increasing use of social media, marketing and social networking. Primary funding for this project was provided by the National Institute for Occupational Safety and Health (NIOSH), which continues to serve as the lead federal agency for the national initiative.

KEYWORDS. Agriculture, children, injury prevention, national plan

Barbara C. Lee and Barbara Marlenga are affiliated with the National Farm Medicine Center and National Children's Center for Rural and Agricultural Health and Safety, Marshfield, Wisconsin, USA.

Susan S. Gallagher is affiliated with Tufts University School of Medicine, Department of Public Health and Community Medicine, Boston, Massachusetts, USA.

Amy K. Liebman is affiliated with Migrant Clinicians Network, Salisbury, Maryland, USA.

Mary E. Miller is affiliated with the Washington State Department of Labor and Industries, Olympia, Washington, USA.

Primary funding for this work is provided by the National Institute for Occupational Safety and Health (NIOSH U54OH990568). The authors express gratitude to the many individuals who provided guidance in the process and input for the content of the 2012 National Action Plan for Protecting Children in Agriculture. This work was supported with funding from the National Institute for Occupational Safety and Health (NIOSH - U54OH00-568). The action plan does not constitute a specific position of Centers for Disease Control and Prevention (CDC) or NIOSH; rather it reflects the consensus of participants in the development of the plan.

Address correspondence to: Barbara C. Lee, PhD, National Farm Medicine Center, 1000 North Oak Avenue, Marshfield, WI 54449, USA (E-mail: lee.barbara@mcrf.mfldclin.edu).

Lee et al. 89

Since the adoption of the first US National Action Plan for Childhood Agricultural Injury Prevention in 1996, there has been an outpouring of energy, concern, and commitment to protect children from the acute and chronic consequences of agricultural trauma and disease. The public is becoming increasingly aware that traumatic injuries and deaths of children (younger than 18 years) in dangerous work settings are predictable and, therefore, preventable. With a united vision for safeguarding working and nonworking children on farms, the collective efforts of parents, safety professionals, agricultural organizations, health care providers, educators, news reporters, and others have accomplished several of the objectives put forth in the 1996 Action Plan. Several successes were noted within a few years of launching this plan. A childhood agricultural injury surveillance system was implemented, work guidelines for children were developed, and many intervention studies were funded.

To keep that momentum going, the original plan was updated in 2001, resetting priorities with an increased focus on nonworking children who were victims of the majority of agricultural injuries.² In the following years, more successes were noted. As educational programs and other interventions were being evaluated and published, knowledge was gained regarding strengths and weaknesses of different strategies. The number of people involved in this initiative expanded notably. Federal and private sector funding of research and programs remained steady.

Then, a decade later, it was time to revisit the plan. Over an 18-month period assessments of progress were conducted, childhood agricultural injury data were analyzed, and changing patterns of agricultural production and demographics of workers were reviewed. Scholars in various disciplines generated recommendations for research, programs, policy, and other suggestions based upon their area of expertise (refer to papers in this issue of the *Journal of Agromedicine*). The information from these sources formed the basis of a 2012 National Action Plan, part of a project funded by the National Institute for Occupational Safety and Health (NIOSH) known as the "Blueprint for

FIGURE 1. Logo of the 2012 National Action Plan (color figure available online).



Blueprint for Protecting Children in Agriculture

Knowledge Translation"(Figure 1). The project methods involved drafting a new action plan, soliciting initial feedback from key individuals engaged in childhood safety endeavors, posting the plan on the Internet for public feedback, and then modifying the plan based upon stakeholder input.

Following is an Executive Summary of the 2012 National Action Plan. Included here are only the goal statements and their respective strategies. The full document, under separate publication, provides background information, supporting references, and detailed examples of how these strategies can be employed to enhance the safety and well-being of children who live, work, and visit on farms.

GOALS AND RECOMMENDED STRATEGIES OF THE 2012 NATIONAL ACTION PLAN

A. Leadership

Goal

Develop and sustain a strong public/private infrastructure at national, regional, and state levels to provide the vision, leadership, and commitment necessary to ensure safety and health for all children living, visiting, and working in agricultural settings.

Strategies

1. Provide continuity of leadership for the updated National Action Plan through the National Institute for Occupational Safety and Health (NIOSH), which has guided the plan since its launch in 1996. Federal agencies, including US Departments

of Agriculture, Education, Labor, and Health and Human Services, and the US Environmental Protection Agency should maintain involvement (including funding) to ensure issues related to working and nonworking children are addressed. Federal agency leadership should be augmented by regional and state leadership of, and involvement in, programs relevant to their identified needs.

2. Support a national coordinating Center of Excellence for Childhood Agricultural Safety and Health via funding from the public and private sector. The Center should collaborate with entities dealing with children and youth, high-risk and underserved populations, agriculture, public health including injury prevention, occupational safety and health, the environment, and health care services. The Center should also work closely with agricultural employers, farm organizations, and farmworker advocates. In all cases, collaborations should facilitate achievement of the goals of this national action plan.

Key responsibilities of the national coordinating Center should include: (a) reviewing and updating the national childhood agricultural injury prevention agenda every 5 years based upon injury, fatality, exposure, and illness data; research findings; and intervention effectiveness; (b) promoting meritorious scientific research aimed at reduction of agricultural hazards and exposures, and promotion of desirable behaviors; (c) facilitating knowledge mobilization,* information dissemination, and evaluation across public and private sector stakeholders; (d) identifying, cultivating, and involving "champions" to raise visibility, open new opportunities for enhanced collaborations, and inspire the diffusion of national efforts to regional, state and local levels; and (e) serving as a liaison with the international community of child safety advocates to identify promising strategies and share lessons learned from proven interventions. [**Note*:

- Knowledge Mobilization is defined as "a proactive process of applying available knowledge from systematic study plus experience into active service to benefit society.]
- Facilitate investment in evidence-based agricultural safety and health programs by agricultural businesses, service organizations, and nongovernmental entities such as foundations, based upon identified needs as well as principles of corporate social responsibility and shared values.
- 4. Maintain current, and add new, comprehensive state-based injury prevention systems with the goal of implementing coherent, cohesive, and achievable strategies associated with agriculture.

B. Injury, Disease, and Exposure Data

Goal

Support and improve childhood agricultural injury and disease data collection and reporting systems to better address causation, gaps in knowledge, and the development and evaluation of prevention strategies.

Strategies

- 1. Enhance data collection systems and data quality at national, regional, and state levels to (a) better understand the most prevalent types of injuries and their causes; (b) adopt uniform categories and variables for reporting data, such as age groups, residency status, and agent of injury; (c) expand and include unique, vulnerable populations currently underrepresented (e.g., immigrant and migrant populations); and (d) integrate relevant variables (e.g., employment and residency status) into existing, nonagricultural data.
- 2. Improve timeliness and public access to childhood agricultural injury data by (a) informing the public how and where to secure data with key variables; (b) developing an interactive database system that provides customized online reports; (c) exploring options to link

Lee et al. 91

information across pertinent data sets; and (d) promoting the mandatory inclusion of relevant terms (e.g., farm residency, occupation, hazardous exposures) and searchable fields within Electronic Health Records (EHR).

C. Research

Goal

Conduct basic and applied research to guide optimal childhood agricultural safety and health interventions (policies and programs) at national, regional, state, and local levels.

Strategies

- Using multiple research methods, identify major facilitators and barriers to broad-scale adoption of the most effective agricultural safety and health promotion strategies, targeted to specific populations, including at-risk immigrant populations.
- 2. Identify interventions and effective implementation strategies that remove young children (0 to 6 years) from agricultural work settings.
- 3. Conduct engineering and ergonomic studies to determine effective strategies to minimize and/or eliminate hazardous work conditions that lead to musculoskeletal and traumatic injuries, as well as adverse environmental exposures, among young workers.
- Conduct research that guides application of social marketing, social networking, and social media to influence adoption of agricultural safety principles.
- Evaluate the impact of this childhood agricultural injury prevention initiative to determine the most cost-effective strategies to guide future investments in childhood agricultural safety and health.

D. Public Policy

Goal

Work cooperatively with stakeholders to ensure that laws, regulations, and policies keep pace with ongoing changes in the agricultural work environment with the goal of protecting all children effectively and equally.

Strategies

- 1. Develop strategies to eliminate gaps and to strengthen protections for youth under age 18 working in agriculture, using legislative and regulatory mechanisms that focus on (a) appropriate age limits for tasks deemed hazardous; (b) limits on work hours; and (c) removing exemptions that leave categories of children without regulatory or legal protection.
- Strengthen enforcement of regulations and provide support (with funding) to facilitate employers' and supervisors' adoption of procedures that protect hired youth workers.
- Ensure that workers' compensation systems cover employed youth who are injured while working in agriculture; and provide higher compensation benefits to youth who suffer severe, disabling injuries that compromise future career opportunities.
- 4. Support public policies that stabilize family units and foster community involvement, including (a) access to educational opportunities; (b) access to health care; (c) immigration reform; (d) minimum wage; and (e) access to child care that is affordable, high quality, and accessible.

E. Organization Policy

Goal

Accelerate the agricultural industry and associated organizations' adoption of safety and health standards that protect children and young workers.

Strategies

- Encourage agricultural businesses and farm organizations to adopt and monitor evidence-based policies and practices that set high standards for protecting both working youth and nonworking children.
- 2. Encourage and facilitate organizational policies and guidelines for professionals

- in health care, social welfare, and health and safety to assist in the recognition, management, and prevention of childhood agricultural injuries and disease.
- Guide agricultural employers in strategies for hiring youth to work in developmentally appropriate jobs with supervision, training, and opportunities for career advancement within the agriculture industry.
- 4. Facilitate communications and strategies by which major agricultural corporations and national-level farm organizations can influence the "culture of family farming" to replace unsafe traditions with practices known to decrease childhood exposures and injury.

F. Interventions

Goal

Identify and actively endorse effective childhood safety and health interventions that address the spectrum of populations associated with agriculture.

Strategies

- 1. Improve the effectiveness of all interventions by (a) applying formative research and theory-based approaches; (b) involving nontraditional partners as well as health care providers in the program design, implementation, and evaluation; and (c) developing a continuum of strategies to ensure sustainability of safe practices.
- Promote the adoption of strategies that physically separate young children from the work site, including off-farm, highquality, affordable, and accessible child care programs.
- Develop, disseminate, and assess the effectiveness of voluntary safety guidelines aimed at youth to be adopted by farm/ ranch owners, parents, agricultural employers, agribusinesses, and farm organizations.
- 4. Promote interventions that address specific risk factors for the leading causes of nonfatal childhood agricultural injuries

- such as handling livestock and operating all-terrain vehicles (ATVs), with special attention to eliminating traumatic brain injury.
- 5. Integrate social marketing principles, social networking, and social media strategies in the development of culturally and linguistically appropriate safety information and training for key stakeholders as part of a comprehensive intervention strategy.

G. Knowledge Mobilization and Dissemination

Goal

Mobilize and disseminate evidencebased practices to stakeholders via proactive collaborations.

Strategies

- 1. Facilitate knowledge mobilization on major issues and model programs through a Center of Excellence for Childhood Agricultural Safety and Health (Strategy and multidisciplinary groups. Priorities for focus of this strategy include (a) emerging health and safety issues; (b) disease and injury data applications to guide interventions; (c) high-quality, affordable, accessible child care options that address the unique needs and work hours of agricultural workers; (d) interventions for, and outreach to, high-risk and underserved populations such as immigrants, migrants, Anabaptists, and Native Americans; (e) strategies to inform parents about hazardous work and provide guidance about age-based restrictions; and (f) injuries associated with the cross-over of work and recreational activities such as ATVs and horses.
- Encourage expanded professional training opportunities for people in a position to influence parents of young children (e.g., health care practitioners, teachers, childcare providers).

Lee et al. 93

- 3. Promote widespread integration of child-hood agricultural safety and health issues into existing mechanisms that currently reach parents, youth, teachers, and farm owners (e.g., social media networks, trade journals, farm organizations).
- Facilitate agricultural employers' dissemination of culturally, linguistically, and developmentally appropriate safety information and programs to their young workers.

Although attempts were made to ensure that this plan reflects current state-of-the-art research along with priorities based upon the most common types of agricultural injuries and fatalities experienced by children, no plan can be absolute. We propose this plan be revisited at least every 5 years in order to redirect priorities and, hopefully, celebrate successes. Until all children and young adults are protected equally and

effectively from preventable agriculture-related disease and injuries, our work must continue.

The National Children's Center for Rural and Agricultural Health and Safety of Marshfield, Wisconsin, led this and previous efforts to create and update these plans for the United States through a consensus-development process. All plans and related work are available on the website of the National Children's Center for Rural and Agricultural Health and Safety.

REFERENCES

- National Committee for Childhood Agricultural Injury Prevention. Children and Agriculture: Opportunities for Safety and Health. Marshfield, WI: Marshfield Clinic; 1996.
- 2. Lee B, Gallagher S, Marlenga B, Hard D, eds. Childhood Agricultural Injury Prevention: Progress Report and Updated National Action Plan from the 2001 Summit. Marshfield. WI: Marshfield Clinic; 2002.