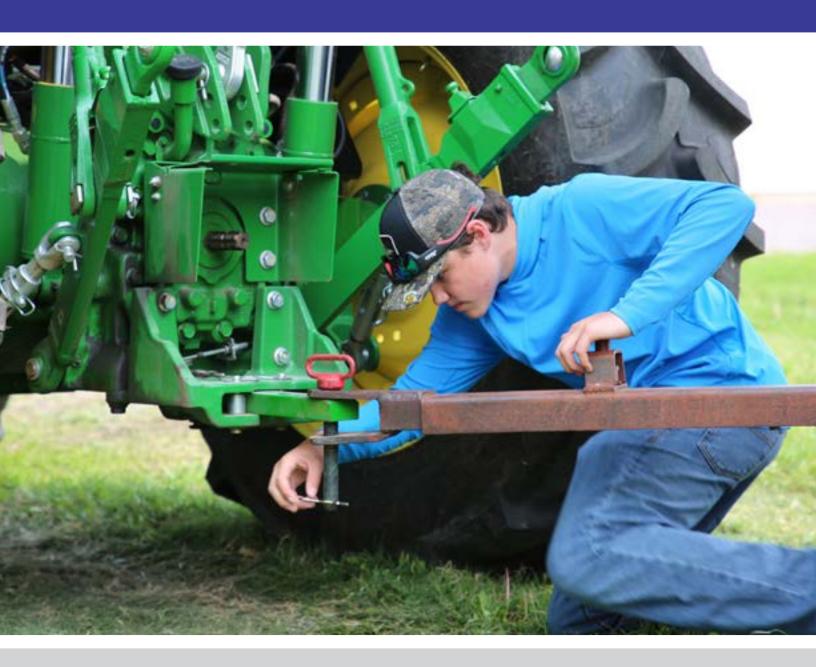
Safeguarding Children in Agriculture:

A National Action Plan

2025





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Executive Summary

The purpose of this document is to provide a framework to guide the next decade of safeguarding youth in agricultural and rural environments. This action plan focuses on seven key goals which inform different strategies presented. Included are expected outcomes should the strategies be achieved. A chart of goals with their respective strategies and outcomes is provided at the end of this document.

Seven Goals

- **1. Leadership:** Strengthen and support national-level initiatives to improve the health and safety of children and young workers in agricultural environments.
- 2. Injury, Disease, and Exposure Data: Develop and implement state, regional, and national systems to collect, analyze, and disseminate fatal and nonfatal injury and disease data on youth in agricultural settings to guide research, policy, and interventions.
- **3. Public Policy:** Identify and promote public policy strategies that provide safeguards for all children and young workers in agricultural environments.
- **4. Organizational Policy:** Facilitate and promote agribusiness and farm/ranch organization strategies that safeguard all children and young workers in agricultural environments.
- **5. Research:** Guide optimal childhood agricultural health and safety initiatives at local, state, regional, and national levels.
- **6. Dissemination and Implementation:** Increase adoption of evidence-informed childhood agricultural health and safety strategies at local, state, regional, and national levels through effective communication, dissemination, and implementation.
- **7. Emerging Threats:** Monitor, identify, and address new and emerging threats to the well-being of youth living, working, and visiting in agricultural environments.

Background

Purpose

"Safeguarding Children in Agriculture" offers an updated framework for protecting the safety, health, and well-being of children who live on, work on, or visit our nation's nearly two million farms and ranches. Since 1996, the U.S. has had a National Action Plan for Childhood Agricultural Injury Prevention. The first plan was reviewed and updated in 2001 and again in 2012. By 2020, with approval and support from the National Institute for Occupational Safety and Health (NIOSH), it was recommended the 2012 plan be updated and released by 2025. The version presented here intends to reflect decades of progress while incorporating new and emerging issues that have arisen over the past decade including automated agricultural production practices, new technologies, environmental exposures, extreme weather, changing demographics of farm owners and workers, along with organizational and public policies.

Strategic plans serve many purposes. The process of establishing a plan creates a collaborative bond among people with similar hopes and goals to set objectives with proposed strategies and desired outcomes. Once established, a strategic plan provides a blueprint or a roadmap towards a common vision that aspires to identify priorities and opportunities that ultimately lead to successful achievement of goals.



Terminology

For purposes of this document, the term "child" or "young person" is defined as 0 -17 years old. Words such as "childhood," "working youth," or "young people" are used interchangeably. The general understanding is that young children are 0-6 years, young workers on family farms are usually 7-17 years, and hired farmworker youth are typically 12-17 years. For purposes of data collection or reports, youth are often categorized as working versus non-working; household (living at the farm) versus hired or visiting youth; and by age increments (e.g., 0-4, 5-9, 10-14, 15-17). There is also growing use of the term "emerging adulthood" as a phase between late adolescence and full adulthood (up to 30). Thus, many of the goals and strategies proposed within this plan have relevance into young adulthood.

Terminology regarding the population addressed in this action plan addresses children and young adults with respect to their residential relationship and their work. The term "seasonal" could be a local person fulfilling specific jobs such as harvesting strawberries, or it could be a hired youth passing through the region, moving from job to job. "Migrant" working youth or young children of adult migrant workers are those who transport themselves to wherever there is an employment opportunity. For the past 50 years, the majority of migrant agricultural workers in the U.S. have come from Mexico or Central America. However, characteristics of farmworkers and their families continues to evolve, especially as many individuals and families find stable year-round employment. Immigrant workers and their families are new to the U.S. and can be permanent, seasonal or migratory in their residential status. Any of these individuals may have arrived in the U.S. through a legal process or, perhaps as undocumented. Regardless of their immigration process, the children and young workers deserve equal opportunities for health and safety when living or working in U.S. agricultural settings.

Some strategies within this plan include a specific call to action regarding terminology. Safety advocates and the media are encouraged to avoid the word "accident" or related terms (e.g. "accidental") when referring to youth on farms. A detailed 2024 commentary indicated that child farm injuries and deaths are never "accidents" because they are predictable and preventable. Thus, this national action plan uses alternate terms such as fatal and nonfatal injuries and tractor rollovers. And rather than refer to disease and injury, positive terminology of health, wellbeing and safety is frequently utilized.



Furthermore, the term "trusted messenger" is used within this plan. Recent years have shown an increased distrust of news outlets. There are concerns about biases, honesty and trustworthiness including assumptions about the validity and value of scientific evidence. Information sources and reporters can change over time. This puts people in a position of frequently assessing the sources they trust to provide accurate, meaningful information, including guidance for theirs and their family's well-being. Disseminating childhood agricultural safety and health information to any population should be facilitated through a "trusted messenger" for such guidance to be taken seriously. Another phrase sometimes used to convey trusted messengers is "authentic voices."

Audience

This action plan addresses leadership, data gathering, policy, research, dissemination, and implementation. Additionally, it addresses emerging issues that have relevance for a wide range of audiences affiliated with agriculture, youth, and safety and health. Examples include child farm safety organizations, agribusinesses, farm organizations, federal, state and local agencies, educators, researchers, communicators, philanthropists, and policymakers. Previously, the National Action Plans have been prepared, printed, and disseminated by and for English-speaking audiences. However, given the demographic population changes in the US and, particularly workers in agriculture, it is important to include the perspectives, voices, and communication preferences of the Spanish-speaking audience. The development process of this document involved engagement of hired farmworkers and childcare providers of farmworker children. Together they proposed strategies and outcomes specific to living and working conditions.

Brief background of the childhood agricultural injury prevention movement

Historians explain that the agricultural safety and health movement evolved from within industrial safety activities affiliated with the National Safety Council.² The first national conference on general farm safety occurred in 1942. It was 50 years later that the first national symposium addressing safety of children and young workers on farms was convened.³ Efforts took forward strides when a coalition of individuals representing farm owners, parents, pediatricians, agribusiness and safety professionals collaborated over a two-year span to create the first National Action Plan for Childhood Agricultural Injury Prevention.⁴ The plan was approved by the U.S. Congress in late 1996 with appropriations for its implementation via NIOSH.⁵ Since that time nearly every conference that addressed safety for farmers included a component specific to children who live and/or work on farms.

By the year 1998 there were three major groups addressing the safety and health of children on farms. These included Farm Safety 4 Just Kids in Earlham, IA; Progressive Ag Foundation in Birmingham, AL; and the National Children's Center for Rural and Agricultural Health and Safety in Marshfield, WI. Together, these three organizations elevated the importance of safeguarding children through the development of the first voluntary guidelines for safe play and appropriate work, evidence-informed interventions such as safety demonstrations at community or school-level events across the country, creating and dissemination of safety resources, and building of local coalitions and champions for safety. The efforts of these organizations were expanded by other child farm safety advocates as well as state-level Cooperative Extension services, rural hospitals, and community groups.

A Childhood Agricultural Safety Network (CASN) was formed in 2000 as a collaborative communications hub for the growing number of individuals and organizations interested in child farm safety and health. Outputs from their efforts included public service campaigns such as "It's Easier to Bury a Tradition than a Child" as well as united messages regarding ATV safety and lawnmower safety.⁶ By 2025, this network numbered more than 250 people, connected through online meetings and with an annual in-person meeting.



Fatal and nonfatal injury data and economic burden

Across the 1.9 million US agricultural operations,⁷ there are hundreds of thousands of children living, working, and visiting on the farms and ranches that serve as home, worksites, or recreational areas. There are obvious as well as hidden dangers ranging from agricultural machinery, livestock, ponds, extreme weather, noise, chemicals, and airborne pollutants.⁸ Fatal and nonfatal injuries as well as preventable health concerns continue to affect youth in agricultural environments.

It is not possible to calculate the exact burden of this problem because there are no current comprehensive databases on agriculture-related disease, injuries or deaths of children in farm environments. Despite public and private sector investments in research, interventions, and outreach, the best available data suggest that annually, about 33 children are seriously injured each day and one child dies about every three days in US agriculture. A closer look reveals that up to two thirds of victims are young, nonworking children who are bystanders in a dangerous worksite. Further, youth working in agriculture are about seven times more likely to experience an occupational fatality in contrast to their non-agriculture counterparts. An analysis of public news media from 2016 to 2021 identified 270 deaths and 278 traumatic injuries among youth on farms. Given that these reports reflect only the most newsworthy cases, the actual number of events is certainly far greater. Moreover, there is no systematic, long-term system for tracking diseases resulting from childhood exposures to chemicals such as pesticides.

The economic impact of fatal and nonfatal agricultural injuries affecting youth is daunting. The combined costs of fatal and nonfatal youth agricultural injuries was estimated at \$2.29 billion in 2024 (using costs estimates of \$1.42 billion per year in 2005 dollars). Looking only at nonfatal traumatic injuries, the annual cost is estimated at \$1.61 billion in 2024. These costs include emergency response, hospitalization, rehabilitation, and short-term work loss, but does not include long-term disability or permanent lifetime productivity reduction. This economic burden is just one of the many negative impacts that the death or traumatic injury of a child has on the family, their farm operation, and the surrounding community.

Progress in research and interventions

Conditions impacting agricultural safety and health for young people are multifaceted, requiring engagement from partners across such disciplines as engineering, education, ergonomics, public health, social and behavioral sciences, and information technologies. Research has moved far beyond the basics of epidemiology that describes injury events into realms that root out the social determinants and agricultural circumstances that put working youth and non-working children at risk. This expansion of disciplines involved in research has yielded new insights into barriers and motivators that influence the choices that adults may (or may not) make to safeguard working or non-working children. The richness of these new multidisciplinary studies has deepened our knowledge and strengthened our ability to propose interventions in response to social and environmental challenges such as compromised access to health care or emergency response services, adverse weather, and infectious diseases.

Recent research has also expanded our knowledge base on several other important topics. The mental health and well-being of young agricultural workers has been assessed and several interventions to improve conditions have been tested. These studies were largely made possible via funding from the US Department of Agriculture and NIOSH, while studies of chemical exposures were funded by NIEHS and EPA. Studies have also been conducted to highlight the benefits of growing up on farms, thus, balancing most previous research that emphasized risks over benefits of agricultural environments.¹² Another research topic recently addressed reflects the challenges experienced by farm parents, especially mothers, who have limited options for off-farm childcare services.¹³ Finally, the impact of infectious diseases on children following the COVID-19 outbreak, shed light on how school closures impacted the increased involvement of children in family farm chores.¹⁴

Interventions such as in-person "farm safety days" and tractor safety training have been evaluated and shown positive effects. Additionally, with the Socio-Ecological Model as a framework, repeated and multi-faceted safety communications have been delivered from sources far beyond traditional safety professionals. Influencers now include agribusiness leaders, farm organizations, medical providers, educators, farmworker advocates, law enforcement, first responders, fire-fighters, and faith-based groups. Further, the widespread adoption of social media has expanded safety and health messaging exponentially.



Persistent issues and gaps

While many changes have occurred since the release of the 2012 National Action Plan, several problems persist. One of the most nagging issues is that tractors remain the most common source of youth deaths on farms. Adding to the tractor problem is the increasing number of childhood fatalities associated with skid steers – a compact, versatile machine with lift arms, used for working in small spaces. In addition, the use of ATVs and UTVs for farm work by youth continues to be a steady cause of trauma.

Looking closely at injury and fatality circumstances, another persistent issue pertains to the "culture" of family farming. Traditional practices and customs often override safety recommendations. This culture is often intertwined with economic pressures to maintain the viability of a farm or ranch. Further exacerbating this situation, there are few regulatory standards to hold farm employers, farm owners and parents accountable for negligent or inattentive behaviors that put working or non-working children at risk on farms. Yet another emerging issue warranting increased attention relates to outdoor agricultural work. Rising temperatures and extreme weather events can have adverse effects on a person's health and safety, with those effects more intense on young, developing bodies.

Increased attention to child labor

At the time the 2012 plan was being released, the Wage and Hour Division of the U.S. Department of Labor had recommended updated rules for youth work in agriculture, expanding protections beyond the 1979 rules. These proposed rules were withdrawn amongst considerable resistance from many factions. To date federal rules and regulations regarding youth working in agriculture remains separate from all other occupations, the biggest difference being the minimum age for hazardous work (ages 16 in agriculture vs. 18 in non-agriculture). Additionally, proposed federal policy to protect exploitation of immigrant children via the CARE act has not been able to secure congressional approval (refer to S. 1792 118th Congress {2023-2024}).

State-level child labor regulations have recently been targeted following a New York Times expose' on children as young as 12 years illegally working in agricultural facilities. Since that December 2023 front page report, several states have tightened their child labor regulations, while even more states have loosened their regulations at the request of employers hit hard by labor shortages. 16

Importance of funding to keep plan in motion

While volunteer efforts are always welcome, many proposed strategies in this plan are dependent on coordinated efforts that require public and/or private funding. Since 1996, federal funds have supported injury surveillance, basic and applied research, intervention testing, and outreach activities. Private sector funds, largely from agribusinesses, have supported the majority of outreach education programs reaching farm families and youth. Child farm safety advocates are extremely grateful for the financial support that has contributed to current success stories. Hopefully, the strategies within this plan can move forward with continued financial support from federal and state agencies as well as private foundations, agribusinesses, and the community groups that reap the benefits of safety, health and well-being for children in agricultural settings.

Process used for updating this plan (for 2025 release)

The process for developing this 2025 national action plan was built on lessons learned from previous efforts. It relied on a core team from the National Children's Center, two external advisors and many others (Appendix A). Five distinct phases contributed to the plan's completion, dissemination and evaluation.

Phase One involved a core team of which three of the members had participated in development of previous national action plans. Once the team was confirmed and roles identified, a comprehensive review of previous action plans was undertaken. Phase Two consisted of drafting a new plan. An in-person meeting with guests and consultants led to identification of seven goals, based on themes of leadership, data, public policy, organizational policy, research, dissemination and implementation, and emerging issues. Over a four-month period a series of "think tank" and "listening" sessions were convened via video conferences and in-person meetings. Participants included child safety advocates, youth serving organization representatives, migrant farmworkers, researchers, educators, and representatives of other farm or youth-related organizations. These participants identified successes, gaps, and questions related to the seven theme areas. Notes and transcripts from these sessions were analyzed to determine perspectives and priorities of stakeholders regarding content to be included in the plan.

Phase three was launched to secure critiques and in-depth reviews from eight knowledgeable individuals with expertise in the topics and strategies as proposed. A standardized feedback form was provided to capture recommendations on each of the seven goals. The Core team then adjusted the plan's components and prepared a next version to be share with a larger audience. Once feedback from all these individuals, representing many disciplines and perspectives, was captured a final version of the plan was prepared.

The fourth phase of the process included dissemination of print and on-line versions of the document. As noted earlier there is a broad audience of stakeholders for a national action plan and the use of online communications and social media, combined with a close relationship with agricultural journalists, will help to maintain visibility and viability of this document.

The final phase for developing the national action plan includes process and outcome evaluations. Information on what worked well during the development phase, how well the plan was received by target audiences, and the extent to which the goals might be achieved will guide future investments in priorities and strategies for protecting children affiliated with agriculture.

Closing statements

We all want what is best for children and certainly we all have a vested interest in the success of agricultural production in our country. Our goal in preparing this National Action Plan of 2025 is to work together to ensure the next generation of farmers, farm workers and all those whose careers and lives are affiliated with agriculture have every opportunity to live life to its fullest.

Values & Guiding Principles

The following values and guiding principles inform this National Action Plan. Taken together, they drive the goals, strategies, and outcomes intended to safeguard children in agricultural environments.

Children have the right to a safe and healthy environment.

- Agricultural sites are spaces of living, working, and visiting for children and the scope of this National Action Plan includes all children exposed to hazardous agricultural environments.
- Both working and non-working children are exposed to hazards, but different root causes of exposure may require different prevention strategies.
- This Plan pertains to all children regardless of backgrounds, while recognizing that agricultural variations create different conditions and that various populations may therefore benefit from differing interventions.
- Childhood is characterized by physiological, cognitive, social, and emotional development which entails interventions different from those of adults.

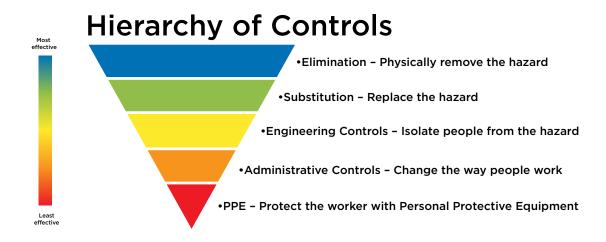
The intersection of children and agriculture pose complex challenges—and opportunities.

- Agriculture provides benefits for children, while also exposing children to risks.
- As demographics and practices shift, the experience and exposures of children in agricultural settings will continue to evolve.
- Recognition of key issues is needed across various stakeholders such as researchers, educators, policymakers, journalists, and farm/ranch organizations.
- Key populations and trusted messengers will need data to make flexible, responsive choices in the face of both emerging and persisting issues.



Agricultural injuries are preventable.

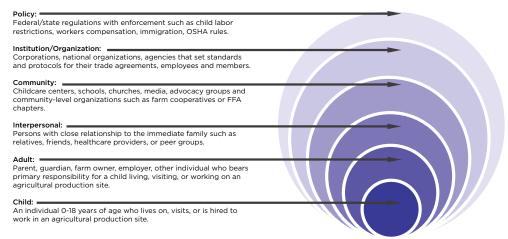
- Terminology describing injury and fatality situations should describe the reality of events and avoid the term "accident," which implies an event was not predictable or preventable.
- The Hierarchy of Controls provides a framework¹⁷ for the child agricultural safety and health strategies described in this Plan.



The Socio-Ecological Model can guide effective interventions.¹⁸

 Safeguarding children in agricultural settings requires action at all levels of the model, from public and organizational policies at the highest levels to interventions targeting direct behavioral changes.

Social-Ecological Model- Definitions



Goals

1. Leadership

Goal Statement: Strengthen and support national-level initiatives to improve the health and safety of children and young workers in agricultural environments.

Strategies:

Continue primary federal oversight and support of this National Childhood
Agricultural Injury Prevention Initiative in collaboration with other federal agencies, a
designated Center of Excellence, and non-government organizations (NGOs) affiliated
with youth and agriculture.

Outcomes:

- A. Public officials will be aware of this National Action Plan.
- B. A dedicated budget line item will be maintained within the appropriate federal oversight agency for this initiative and associated activities, augmented with funding from other federal agencies affiliated with agriculture, children, and families.

A Center of Excellence leads youth agricultural health and safety in

- Research
- Interventions to promote health and safety
- Translation of research to practice
- Communication and dissemination of evidence-informed solutions³
- Training for the next generation



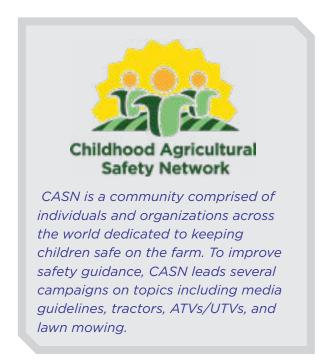
Provide leadership and mentoring that empowers the next generation to carry forth sustainable and adaptable youth agricultural safety and health initiatives.

Outcomes:

- A. Occupational health and safety careers will be promoted during early stages of youth decision making.
- B. Advanced academic opportunities will be supported through fellowships, post-doctoral training, and scholarships via federal agencies, government-funded extramural Centers, and other university-based programs.
- Expand collaborations and partnerships among agricultural constituents and youth/farm safety advocates at national, state, and local levels to strengthen the foundation for youth safety initiatives by unifying messaging, pooling resources, and expanding knowledge and expertise.

Outcomes:

- A. The Childhood Agricultural Safety Network (CASN) will be sustained as a coordinated and unified "national voice" for youth in agriculture.
- B. Substantial public financial support will be provided for state-based Extension safety and health programs, state-based injury prevention programs, community hospitals, and outreach programs of Agricultural Health and Safety Centers.
- C. Private and public sector funds will be made available for a Childhood Agricultural Safety Symposium to be held every five years, bringing groups together from the public and private sectors to identify successes and to strategize around ongoing concerns.



4. Integrate youth agricultural safety and health into existing national organizations' priorities and advocacy efforts.

Outcomes:

A. Strategic plans of professional organizations and NGOs will include areas of focus on youth in rural and agricultural settings.

B. Youth agricultural safety and health topics will be incorporated into USDA/NIFA (or other relevant agency) programming and funding opportunities, especially as it pertains to emerging issues in remote regions and populations disproportionately affected by injury and illnesses.

Professional organizations include but are not limited to: American Academy of Pediatrics, National Rural Health Association, International Society for Agricultural Safety and Health, Agricultural Safety and Healthy Council of America, Society for the Advancement of Violence and Injury Research, American Public Health Association, and the Society for Research in Child Development.

Encourage strategies that motivate agribusinesses, insurers, farm organizations, farmers, and ranchers to influence and promote a broad-based culture of safety for working and non-working children.

Outcomes:

- A. Corporate stewardship funding and grants for youth agricultural safety and health initiatives will be emphasized via media and agricultural organizations.
- B. Corporate social responsibility programs that involve employees in "giving back" to their rural communities will be highlighted as a business strategy for company reputation and employee satisfaction.

CHS Inc. Stewardship

As an agricultural business' Corporate Social Responsibility program, CHS Inc. funds initiatives that provide training, equipment, and industry expertise to promote health and safety among farm families and rural communities. *In addition, they provide opportunities* for employees to give back to their local communities through paid time off to volunteer. CHS Inc. hosts annual CHS Spirit of Service Days, a two-week period during which volunteer projects are encouraged. In 2024, more than 35 volunteer projects impacting youth, the environment, and access to basic needs were worked on by CHS Inc. employees.

Expand public and private industry funding to address new and emerging threats impacting youth living, working, or visiting in agricultural settings.

Outcomes:

A. Public and private funding will support research, testing, and record keeping for infectious diseases, environmental hazards, robotics and autonomous machinery standards, human trafficking, exploitative child labor, and other new and emerging threats.

2. Injury, Disease, and Exposure Data

Goal Statement: Develop and implement state, regional, and national systems to collect, analyze, and disseminate fatal and nonfatal injury and disease data on youth in agricultural settings to guide research, policy, and interventions.

Strategies:

Dedicated funding will be increased for monitoring the well-being of children in agriculture.

Outcomes:

- A. A unified surveillance system will be operationalized for collecting, analyzing, and disseminating data on fatal and nonfatal agricultural injuries and diseases.
- B. Private and public funding will be allocated to collaboratively conduct periodic, nationally coordinated surveys (or other extracted data) of youth work- and nonwork-related traumatic injuries and diseases associated with production agriculture and ensure the findings are publicly available.
- C. Artificial intelligence will be leveraged to integrate, retrieve, and interpret injury and illness data.



Develop and publish consensus-based guidelines relevant to the collection, coding, analysis, and reporting of incidents related to work exposures of youth in production agriculture in collaboration with relevant agencies, agricultural safety and health professionals, and other interested parties.

Outcomes:

- A. Guidelines will include a data dictionary for terminology, surveillance, data analyses methodologies, and reporting that describes incidents in ways that allow data to be more comparable at state, regional, and national levels.
- B. Revise, expand, and utilize existing coding systems towards providing more precise data.

Data/systems include (but are not limited to): ASAE S575.3 MAY2020 (FAIC), Occupational Injury and Illness Classification Systems (OIICS), and State trauma registries. Explore with USDA-NASS or other responsible agencies about adding questions to the Census of Agriculture and other national surveys.

Outcomes:

- A. Statistically valid fatal and nonfatal injury rates for youth working in agriculture will be updated every five years.
- B. Reports will include extensive detail about demographics, location, injury severity, and economic impact of injury.
- Expand efforts with the U.S.

 Department of Labor's Census of Fatal
 Occupational Injury program and the
 National Center for Fatality Review
 and Prevention to better identify and
 investigate childhood agricultural
 fatalities.

Outcome:

- A. The Census of Fatal Occupational Injury and National Center for Fatality Review and Prevention reports will provide increased details on the circumstances of childhood deaths related to agricultural environments.
- Increase government funding to maximize regional or population-specific data collection on youth agricultural disease and injury data.

Outcome:

A. Geographic regions or states will launch new surveillance systems or maintain and upgrade current systems that enhance the ability to collect, analyze, and generate periodic reports.

Child agricultural injury questions would need enough detail so that rates and reports could be compiled by age groups, states or region, and incident seriousness, date, type, economic costs of injury, etc. This strategy might also employ the idea of working with state departments of agriculture, many of whom also have statistical data survey, analyses, and reporting expertise.



3. Public Policy

Goal Statement: Identify and promote public policy strategies that provide safeguards for all children and young workers in agricultural environments.

Strategies:

Support federal, state, and local policies that improve working conditions for young agricultural workers and strengthen social systems affecting families and workers in rural settings.

Outcomes:

- A. Federal and state policies for youth hired to work in agriculture will be comparable for youth hired in non-agricultural work regarding age and work hours.¹⁶
- B. Public policies and funds will address disparities in unemployment insurance, workers' compensation, paid sick leave, and health care access.
- C. Position papers for educating policy makers and the public will be developed in collaboration with key groups.

Current work hour guidelines are intended to protect time for youth to attend school. Department of Labor Wage and Hour Division should set a minimum age of 16 years for overnight agricultural work.

Professional organizations who might help with position papers include the American Academy of Pediatrics, the National Rural Health Association, and the American Public Health Association.

In cooperation with stakeholders, support the updating of the U.S. Department of Labor's Hazardous Occupations Orders in Agriculture to coincide with current and emerging agricultural work-related hazards and exposures.¹⁶

Outcomes:

- A. The Hazardous Occupations Orders in Agriculture will be updated to reflect current agricultural work practices, automated machinery, and extreme weather conditions.
- B. Federal and state policies will require youth to have a valid driver's license to legally operate tractors and other farm machinery on public roads.

Refer to Department of Labor website and resources. Although Hazardous Occupation Orders in Agriculture apply to hired youth, efforts should be made so that adults on family agricultural operations are familiar with the listing of dangerous activities most often associated with youth disease and injury.



Ensure accessibility to affordable and quality childcare and educational programming, to meet the needs of family farmers and the hired agricultural workforce.

Outcomes:

- A. Government tax incentives will support childcare for working parents in rural and agricultural settings.
- B. Government funding will support early childhood programs, beforeand after- school programs, summer school programs, and school transportation.

The Roadmap for Delivering Child Care in Agricultural Communities provides communities valuable information to improve the health and wellbeing of children of farmworker parents by improving access to safe childcare services. It identifies challenges and assets in communities and builds understanding of how these factors play a role in accessing childcare services.

4 Support funding and training of personnel including local law enforcement, Fire/EMS, and child protection agencies to investigate unsafe and/or inappropriate presence of children in hazardous worksites.

Outcomes:

- A. Personnel will be trained to avoid the term "accident" in incident reports and, where permissible, include prevention strategies in communicated reports.
- B. Local authorities will recommend relevant strategies to be implemented for the safety of children in their jurisdiction.

4. Organizational Policy

Goal statement: Facilitate and promote agribusiness and farm/ranch organization strategies that safeguard all children and young workers in agricultural environments.

Strategies:

Guide agricultural employers' and organizations' strategies for safeguarding hired youth, offering model policies and resources.

Outcomes:

- A. Industry-led training for parents, young workers and farm and ranch supervisors will increase compliance and adoption by employees.
- B. Apprenticeship programs will ensure proper supervision, training, and appropriate work hours.
- C. Agricultural organizations' training programs for youth working in agriculture will be financially supported and easily accessible.
- D. Hired Agricultural Youth Work Guidelines will be promoted and distributed through organizations such as the National Council of Agricultural Employers, ASHCA, workers' compensation insurance programs, and commodity groups.

AgSHARP™, sponsored by the
Agricultural Safety & Health Council of
America, provides resources for owners,
human resources managers, loss control
consultants, workers' compensation
professionals, and others responsible
for agricultural production and business
safety in the workplace.²⁰

Sponsored by American Farm Bureau Federation, Think F.A.S.T. (Farm & Ag Safety Training) is a program focused on general safety, leadership, and critical thinking skills designed for adults to use with children ages 14-17.²¹

Pacilitate and applaud successful organizational efforts that invest in the future of rural and agricultural youth via community service, safety training, public service safety campaigns, off-farm childcare, and similar strategies.

Outcomes:

- A. Child safety advocates will propose opportunities for agribusinesses and organizations to launch youth agricultural health and safety initiatives.
- B. Press releases, newsletter stories, organizational awards, and other communications will emphasize positive programs of agribusinesses and farm organizations.
- C. Agricultural businesses and organizations will provide financial support for family safety strategies including childcare.

Encourage the adoption of family farm safety practices for working and non-working children through evidence-informed programs and resources.

Outcomes:

- A. Programs will address the various barriers and motivators that influence the adoption of safety practices or challenge unsafe traditions.
- B. Agricultural Youth Work Guidelines, Safe Play Areas on Farms, and relevant resources targeted to specific at-risk populations will be promoted and distributed through NGOs.

Organizations supporting successful investment efforts for the future of rural and agricultural youth include: CHS Inc., Progressive Ag Foundation, and RCMA (farmworkers' childcare programs supported by Florida agribusinesses).

Facilitate and support the training of rural health and emergency medical service personnel in the recognition, management, and prevention of agriculture-related acute and chronic conditions impacting the well-being of family farm youth and hired workers.

Outcomes:

- A. Training programs will reach community health workers, rural healthcare practitioners, agribusiness risk managers, and other trusted messengers within agricultural communities.
- B. Content will incorporate mental health, infectious disease, safe housing practices, and extreme weather-related hazards along with safety principles relevant to youth.
- C. Program content and delivery will be tailored based on needs of specific populations.

Online safety training programs include CS-CASH agricultural safety program, the Great Plains Ag Health and Safety course, Protecting Young Workers in Agriculture, and AgriSafe nurse scholar program.



5. Research

Goal Statement: Guide optimal childhood agricultural health and safety initiatives at local, state, regional, and national levels.

Strategies:

1 Conduct multidisciplinary research to understand the complex and interrelated factors associated with youth and adolescent agricultural health and safety.

Outcomes:

- A. Funding will be increased and diversified for the support of rigorous interdisciplinary research validated through peer review and publication.
- B. Research findings will expand knowledge regarding factors that predispose youth to various injury and disease risks and vulnerabilities.
- C. Research priorities will be set based on expressed needs from the agricultural industry.



Use valid injury and disease data, in conjunction with community partners, to develop, test, and evaluate initiatives inclusive of populations most affected by injury and diseases.

Outcomes:

- A. Research will determine the most viable targets and strategies for protecting working and non-working youth across all levels of the Socio-Ecological Model.
- B. Research results will identify initiatives with a holistic return on investment, including adoption of effective safety practices, cultural acceptability, and financial viability.
- C. Evaluation results will document and prioritize facilitating and obstructing factors and unintended consequences that impact broad-scale adoption of initiatives.





Investigate the origins, progressions, transmissions, and outcomes of illnesses that contribute to the burden of disease for agricultural youth.

Outcomes:

- A. Research will underscore prevention and treatment of conditions including, but not limited to, mental well-being, infectious diseases, respiratory illnesses, and vector-borne diseases.
- B. Research will describe the impact of social determinants of health on vital conditions for health and well-being.

Social Determinants of Health-Healthy People 2030



Innovate and adopt emerging methodologies which could be incorporated into the field of youth agricultural health and safety research.

Outcomes:

- A. New methodologies will employ machine learning, artificial intelligence, and other emergent technologies.
- B. Scholars from different disciplines will collaborate in pursuit of novel research methodologies to enrich and inform new safety and health interventions.

6. Dissemination and Implementation

Goal Statement: Increase adoption of evidence-informed childhood agricultural health and safety strategies at local, state, regional, and national levels through effective communication, dissemination, and implementation.

Strategies:

Support communications and outreach efforts between agencies, organizations, and partners to safeguard youth in agricultural settings.

Outcomes:

- A. Individuals and organizations will collaborate to share research, education, and outreach efforts.
- B. Communication between governmental, NGOs, and coalitions will be strengthened.
- C. Public and private sector funding will be available to support successful dissemination and implementation.

Dissemination (targeted sharing of information), implementation (the use of evidence-based materials and interventions to change outcomes) and communication (the exchanging of information), are essential for reducing injuries and illnesses among youth living and working in agricultural environments.

2 Disseminate and promote the implementation of strategies to safeguard youth involved in agricultural work.

Outcomes:

- A. Educators, parents, researchers, community health workers, and adolescent workers will be aware of and use research-informed resources.
- B. Employers will be aware of and adopt resources, regulations, and model policies for hired youth.
- C. The Hierarchy of Controls will be applied to recommend prevention strategies at the highest levels of safety.

Examples of additional resources for working youth include:

- National Safe Tractor and Machinery Operation Program
- Safety in Agriculture for Youth National Clearinghouse
- DOL/Youth Rules



Disseminate and promote the implementation of evidence-informed strategies to safeguard non-working children.

Outcome:

- A. Farm owners and parents with children on farms will be aware of and adopt strategies (e.g. safe play areas, childcare) to keep non-working children out of the worksite and away from known sources of dangerous exposures.
- B. Communities will implement strategies to safeguard non-working children, such as high-quality and affordable childcare, educational programming, and summer camps.
- Facilitate the accessibility and dissemination of effective childhood agricultural safety and health information and resources.

Outcomes:

- A. Safety information and interventions will follow communication guidelines for presentation of text, graphics, and videos.
- B. Messages and materials will be customized to be relevant and accessible for intended audiences, including language, graphics, and formats (e.g., social media, video, audio, print, etc.).

The Cultivate Safety Media Guidelines provide guidance on creating farm safety messages.²² Section 508 of the Rehabilitation Act provides readability guidelines and best practices for internet communication.²³

Ensure the availability of safety training opportunities and integrate youth-specific curriculum into existing safety training programs.

Outcomes:

- A. Ensure that existing agricultural safety and health programming includes youth components.
- B. Ensure that existing youth agricultural programming includes health and safety topics.
- C. Ensure that general childhood health and safety programming provided by schools and organizations includes youth agricultural topics when relevant.

Example programming include North Carolina's Agromedicine Institute, FFA's Supervised Agricultural Experience, Red Cross's Babysitting and Childcare Training, and others.

Explore and implement new and emerging technologies in communications and dissemination strategies.

Outcomes:

- A. Curriculum developers and trainers will consider new and emerging communications technologies (virtual and augmented reality and simulators, new forms of social media, AI, digital marketing) in their programming.
- B. Emerging technologies will be tested for the effectiveness of reaching different populations.

Several initiatives provide examples for implementation of emerging technologies: Ohio State University's farm safety virtual reality program, High Plains Intermountain Center for Agricultural Health and Safety promoting farm safety messages through TikTok, and Canadian Agricultural Safety Association's interactive agricultural teaching kits.



7. Emerging Threats

Goal Statement: Monitor, identify, and address new and emerging threats to the well-being of youth living, working, and visiting in agricultural environments.



Promote interaction across major public agencies and private entities to monitor and address issues impacting agricultural health and safety as they emerge.

Outcomes:

- A. Hazardous agricultural issues will be identified and widely communicated to various audiences as they emerge.
- B. Public and private agencies will work together to implement interventions aimed to safeguard youth.

Emerging threats to production agriculture include:

- Extreme weather²⁴
- Food and water insecurity
- Labor shortage
- Cyber threats²⁵
- Biosecurity threats²⁶
- Zoonotic disease
- 2 Identify and address issues relating to exploitative child labor, including immigrant, seasonal, and temporary labor settings.

Outcomes:

- A. Proposed legislation will be assessed at the state and national level for actions impacting the educational, social, and environmental settings of youth working in agriculture.
- B. Suspected violations of child labor laws will be reported to relevant authorities to enforce labor protections.
- C. Suspected human trafficking in agricultural worksites will be reported to relevant authorities to enforce child protections.

Resources for reporting suspected violations:

- US Department of Labor²⁷
- Human Trafficking Hotline²⁸
- Youth.gov²⁹

Monitor and address how youth in agricultural environments are impacted by climate and extreme weather events including (but not limited to) heat, wildfire, flooding, and drought.

Outcomes:

- A. Extreme weather-related events impacting agricultural work and rural environments will be monitored for impacts on youth.
- B. Disaster response programming will include agricultural topics, including emphasis on youth.
- C. Employers and supervisors will institute safety practices for young workers in response to agricultural work hazards associated with extreme weather events.

Safety practices to be implemented when responding to extreme weather events include:

- Training on heat-related illness
- Air quality monitoring
- Suitably sized personal protective equipment
- Buddy system workgroups
- 4 Monitor and address how youth in agricultural environments are impacted by virus and zoonotic disease transmission and airborne pollutants.

Outcomes:

- A. Public health agencies will include the population of agricultural youth when monitoring and addressing emerging diseases.
- B. Healthcare providers who treat agricultural populations will be prepared to provide appropriate care for youth impacted by these conditions.
- C. Industrial hygienists and farm safety professionals will monitor for impacts on youth exposed to increased airborne gasses associated with large-scale grain and livestock operations.

Air- and vector-borne conditions affecting personal health include, but not limited to:

- H5N1/bird flu
- · West Nile, Lyme
- · Grain engulfment or suffocation
- Manure gases
- Encourage the development of evidence-informed industry standards regarding safety of working and bystander youth associated with autonomous vehicles, robotic equipment, and AI-based technology.

Outcome:

A. Organizations and industry groups will incorporate unique factors related to youth into new product standards.

Organizations relevant to incorporating youth safety standards for new products include the American Society of Agricultural and Biological Engineers, while relevant industry groups include the Association of Equipment Manufacturers.

Chart of Goals, Strategies, and Outcomes

1. LEADERSHIP: Strengthen and support national-level initiatives to improve the health and safety of children and young workers in agricultural environments.

Strategies	Outcomes
1. Continue primary federal oversight and support of this National Childhood Agricultural Injury Prevention Initiative in collaboration with other federal agencies, a designated Center of Excellence, and non-government organizations (NGOs) affiliated with youth and agriculture.	A. Public officials will be aware of this National Action Plan. B. A dedicated budget line item will be maintained within the appropriate federal oversight agency for this initiative and associated activities, augmented with funding from other federal agencies affiliated with agriculture, children, and families.
2. Provide leadership and mentoring that empowers the next generation to carry forth sustainable and adaptable youth agricultural safety and health initiatives.	 A. Occupational health and safety careers will be promoted during early stages of youth decision making. B. Advanced academic opportunities will be supported through fellowships, post-doctoral training, and scholarships via federal agencies, government-funded extramural Centers, and other university-based programs.
3. Expand collaborations and partnerships among agricultural constituents and youth/farm safety advocates at national, state, and local levels to strengthen the foundation for youth safety initiatives by unifying messaging, pooling resources, and expanding knowledge and expertise.	 A. The Childhood Agricultural Safety Network (CASN) will be sustained as a coordinated and unified "national voice" for youth in agriculture. B. Substantial public financial support will be provided for state-based Extension safety and health programs, state-based injury prevention programs, community hospitals, and outreach programs of Agricultural Health and Safety Centers. C. Private and public sector funds will be made available for a Childhood Agricultural Safety Symposium to be held every five years, bringing groups together from the public and private sectors to identify successes and to strategize around ongoing concerns.
4. Integrate youth agricultural safety and health into existing national organizations' priorities and advocacy efforts.	 A. Strategic plans of professional organizations and NGOs will include areas of focus on youth in rural and agricultural settings. B. Youth agricultural safety and health topics will be incorporated into USDA/NIFA (or other relevant agency) programming and funding opportunities, especially as it pertains to emerging issues in remote regions and populations disproportionately affected by injury and illnesses.
5. Encourage strategies that motivate agribusinesses, insurers, farm organizations, farmers, and ranchers to influence and promote a broad-based culture of safety for working and non-working children.	A. Corporate stewardship funding and grants for youth agricultural safety and health initiatives will be emphasized via media and agricultural organizations. B. Corporate social responsibility programs that involve employees in "giving back" to their rural communities will be highlighted as a business strategy for company reputation and employee satisfaction.
6. Expand public and private industry funding to address new and emerging threats impacting youth living, working, or visiting in agricultural settings.	A. Public and private funding will support research, testing, and record keeping for infectious diseases, environmental hazards, robotics and autonomous machinery standards, human trafficking, exploitative child labor, and other new and emerging threats.

2. INJURY, DISEASE, AND EXPOSURE DATA: Develop and implement state, regional, and nationally valid systems to collect, analyze, and disseminate fatal and nonfatal injury and disease data on youth in agricultural settings to guide research, policy, and interventions.

Strategies	Outcomes
Dedicated funding will be increased for monitoring the well-being of children in agriculture.	A. A unified surveillance system will be operationalized for collecting, analyzing, and disseminating data on fatal and nonfatal agricultural injuries and diseases. B. Private and public funding will be allocated to collaboratively conduct periodic, nationally coordinated surveys (or other extracted data) of youth work- and nonwork-related traumatic injuries and diseases associated with production agriculture and ensure the findings are publicly available. C. Artificial intelligence will be leveraged to integrate, retrieve, and interpret injury and illness data.
2. Develop and publish consensus-based guidelines relevant to the collection, coding, analysis, and reporting of incidents related to work exposures of youth in production agriculture in collaboration with relevant agencies, agricultural safety and health professionals, and other interested parties.	A. Guidelines will include a data dictionary for terminology, surveillance, data analyses methodologies, and reporting that describes incidents in ways that allow data to be more comparable at state, regional, and national levels. B. Revise, expand, and utilize existing coding systems towards providing more precise data.
 Explore with USDA-NASS or other responsible agencies about adding questions to the Census of Agriculture and other national surveys. 	A. Statistically valid fatal and nonfatal injury rates for youth working in agriculture will be updated every five years. B. Reports will include extensive detail about demographics, location, injury severity, and economic impact of injury.
4. Expand efforts with the U.S. Department of Labor's Census of Fatal Occupational Injury program and the National Center for Fatality Review and Prevention to better identify and investigate childhood agricultural fatalities.	A. The Census of Fatal Occupational Injury and National Center for Fatality Review and Prevention reports will provide increased details on the circumstances of childhood deaths related to agricultural environments.
5. Increase government funding to maximize regional or population-specific data collection on youth agricultural disease and injury data.	A. Geographic regions or states will launch new surveillance systems or maintain and upgrade current systems that enhance the ability to collect, analyze, and generate periodic reports.

3. PUBLIC POLICY: Identify and promote public policy strategies that provide safeguards for all children and young workers in agricultural environments.

Strategies	Outcomes
Support federal, state, and local policies that improve working conditions for young agricultural workers and strengthen social systems affecting families and workers in rural settings.	A. Federal and state policies for youth hired to work in agriculture will be comparable for youth hired in non-agricultural work regarding age and work hours. B. Public policies and funds will address disparities in unemployment insurance, workers' compensation, paid sick leave, and health care access. C. Position papers for educating policy makers and the public will be developed in collaboration with key groups.
2. In cooperation with stakeholders, support the updating of the U.S. Department of Labor's Hazardous Occupations Orders in Agriculture to coincide with current and emerging agricultural work-related hazards and exposures.	A. The Hazardous Occupations Orders in Agriculture will be updated to reflect current agricultural work practices, automated machinery, and extreme weather conditions. B. Federal and state policies will require youth to have a valid driver's license to legally operate tractors and other farm machinery on public roads.
3. Ensure accessibility to affordable and quality childcare and educational programming, to meet the needs of family farmers and the hired agricultural workforce.	A. Government tax incentives will support childcare for working parents in rural and agricultural settings. B. Government funding will support early childhood programs, before- and after- school programs, summer school programs, and school transportation.
4. Support funding and training of personnel including local law enforcement, Fire/EMS, and child protection agencies to investigate unsafe and/or inappropriate presence of children in hazardous worksites.	A. Personnel will be trained to avoid the term "accident" in incident reports and, where permissible, include prevention strategies in communicated reports. B. Local authorities will recommend relevant strategies to be implemented for the safety of children in their jurisdiction.

4. ORGANIZATIONAL POLICY: Facilitate and promote agribusiness and farm/ranch organization strategies that safeguard all children and young workers in agricultural environments.

Strategies	Outcomes
Guide agricultural employers' and organizations' strategies for safeguarding hired youth, offering model policies and resources.	 A. Industry-led training for parents, young workers and farm and ranch supervisors will increase compliance and adoption by employees. B. Apprenticeship programs will ensure proper supervision, training, and appropriate work hours. C. Agricultural organizations' training programs for youth working in agriculture will be financially supported and easily accessible. D. Hired Agricultural Youth Work Guidelines will be promoted and distributed through organizations such as the National Council of Agricultural Employers, ASHCA, workers' compensation insurance programs, and commodity groups.
2. Facilitate and applaud successful organizational efforts that invest in the future of rural and agricultural youth via community service, safety training, public service safety campaigns, off-farm childcare, and similar strategies.	A. Child safety advocates will propose opportunities for agribusinesses and organizations to launch youth agricultural health and safety initiatives. B. Press releases, newsletter stories, organizational awards, and other communications will emphasize positive programs of agribusinesses and farm organizations. C. Agricultural businesses and organizations will provide financial support for family safety strategies including childcare.
3. Encourage the adoption of family farm safety practices for working and non-working children through evidence-informed programs and resources.	 A. Programs will address the various barriers and motivators that influence the adoption of safety practices or challenge unsafe traditions. B. Agricultural Youth Work Guidelines, Safe Play Areas on Farms, and relevant resources targeted to specific at-risk populations will be promoted and distributed through NGOs.
4. Facilitate and support the training of rural health and emergency medical service personnel in the recognition, management, and prevention of agriculture-related acute and chronic conditions impacting the well-being of family farm youth and hired workers.	A. Training programs will reach community health workers, rural healthcare practitioners, agribusiness risk managers, and other relevant individuals within agricultural communities. B. Content will incorporate mental health, infectious disease, safe housing practices, and extreme weather-related hazards along with safety principles relevant to youth. C. Program content and delivery will be tailored based on needs of specific populations.

5. RESEARCH: Guide optimal childhood agricultural health and safety initiatives at local, state, regional, and national levels.

Strategies	Outcomes
Conduct multidisciplinary research to understand the complex and interrelated factors associated with youth and adolescent agricultural health and safety.	A. Funding will be increased and diversified for the support of rigorous interdisciplinary research validated through peer review and publication. B. Research findings will expand knowledge regarding factors that predispose youth to various injury and disease risks and vulnerabilities. C. Research priorities will be set based on expressed needs from the agricultural industry.
2. Use valid injury and disease data, in conjunction with community partners, to develop, test, and evaluate initiatives inclusive of populations most affected by injury and diseases.	A. Research will determine the most viable targets and strategies for protecting working and non-working youth across all levels of the Socio-Ecological Model. B. Research results will identify initiatives with a holistic return on investment, including adoption of effective safety practices, cultural acceptability, and financial viability. C. Evaluation results will document and prioritize facilitating and obstructing factors and unintended consequences that impact broad-scale adoption of initiatives.
3. Investigate the origins, progressions, transmissions, and outcomes of illnesses that contribute to the burden of disease for agricultural youth.	A. Research will underscore prevention and treatment of conditions including, but not limited to, mental wellbeing, infectious diseases, respiratory illnesses, and vector-borne diseases. B. Research will describe the impact of social determinants of health on vital conditions for health and well-being.
4. Innovate and adopt emerging methodologies which could be incorporated into the field of youth agricultural health and safety research.	A. New methodologies will employ machine learning, artificial intelligence, and other emergent technologies. B. Scholars from different disciplines will collaborate in pursuit of novel research methodologies to enrich and inform new safety and health interventions.

6. DISSEMINATION AND IMPLEMENTATION: Increase adoption of evidence-informed childhood agricultural health and safety strategies at local, state, regional, and national levels through effective communication, dissemination, and implementation.

Strategies	Outcomes
Support communications and outreach efforts between agencies, organizations, and partners to safeguard youth in agricultural settings.	A. Individuals and organizations will collaborate to share research, education, and outreach efforts. B. Communication between governmental, NGOs, and coalitions will be strengthened. C. Public and private sector funding will be available to support successful dissemination and implementation.
2. Disseminate and promote the implementation of strategies to safeguard youth involved in agricultural work.	A. Educators, parents, researchers, and adolescent workers will be aware of and use research-informed resources. B. Employers will be aware of and adopt resources, regulations, and model policies for hired youth. C. The Hierarchy of Controls will be applied to recommend prevention strategies at the highest levels of safety.
3. Disseminate and promote the implementation of evidence-informed strategies to safeguard non-working children.	A. Farm owners and parents with children on farms will be aware of and adopt strategies (e.g. safe play areas, childcare) to keep non-working children out of the worksite and away from known sources of dangerous exposures. B. Communities will implement strategies to safeguard non-working children, such as high-quality and affordable childcare, educational programming, and summer camps.
4. Facilitate the accessibility and dissemination of effective childhood agricultural safety and health information and resources.	A. Safety information and interventions will follow communication guidelines for presentation of text, graphics, and videos. B. Messages and materials will be customized to be relevant and accessible for intended audiences, including language, graphics, and formats (e.g., social media, video, audio, print, etc.).
5. Ensure the availability of safety training opportunities and integrate youth-specific curriculum into existing safety training programs.	A. Ensure that existing agricultural safety and health programming includes youth components. B. Ensure that existing youth agricultural programming includes health and safety topics. C. Ensure that general childhood health and safety programming provided by schools and organizations includes youth agricultural topics when relevant.
Explore and implement new and emerging technologies in communications and dissemination strategies.	A. Curriculum developers and trainers will consider new and emerging communications technologies (virtual and augmented reality, new forms of social media, AI, digital marketing) in their programming. B. Emerging technologies will be tested for the effectiveness of reaching different populations.

7. EMERGING THREATS: Monitor, identify, and address new and emerging threats to the well-being of youth living, working, and visiting in agricultural environments.

Strategies	Outcomes
 Promote interaction across major public agencies and private entities to monitor and address issues impacting agricultural health and safety as they emerge. 	A. Hazardous agricultural issues will be identified and widely communicated to various audiences as they emerge. B. Public and private agencies will work together to implement interventions aimed to safeguard youth.
Identify and address issues relating to exploitative child labor, including immigrant, seasonal, and temporary labor settings.	 A. Proposed legislation will be assessed at the state and national level for actions impacting the educational, social, and environmental settings of youth working in agriculture. B. Suspected violations of child labor laws will be reported to relevant authorities to enforce labor protections. C. Suspected human trafficking in agricultural worksites will be reported to relevant authorities to enforce child protections.
3. Monitor and address how youth in agricultural environments are impacted by climate and extreme weather events including (but not limited to) heat, wildfire, flooding, and drought.	A. Extreme weather-related events impacting agricultural work and rural environments will be monitored for impacts on youth. B. Disaster response programming will include agricultural topics, including emphasis on youth. C. Employers and supervisors will institute safety practices for young workers in response to agricultural work hazards associated with extreme weather events.
4. Monitor and address how youth in agricultural environments are impacted by virus and zoonotic disease transmission and airborne pollutants.	A. Public health agencies will include the population of agricultural youth when monitoring and addressing emerging diseases. B. Healthcare providers who treat agricultural populations will be prepared to provide appropriate care for youth impacted by these conditions. C. Industrial hygienists and farm safety professionals will monitor for impacts on youth exposed to increased airborne gasses associated with large-scale grain and livestock operations.
5. Encourage the development of evidence-informed industry standards regarding safety of working and bystander youth associated with autonomous vehicles, robotic equipment, and AI-based technology.	A. Organizations and industry groups will incorporate unique factors related to youth into new product standards.

Appendices

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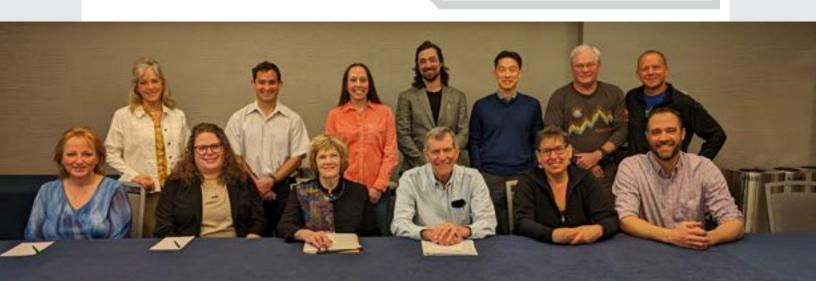
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Notes

