Children/Worker Risk Policy Update

PPDC Meeting

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Revised Risk Assessment Methods for Workers, Children of Workers in Agricultural Fields, and Pesticides with No Food Uses

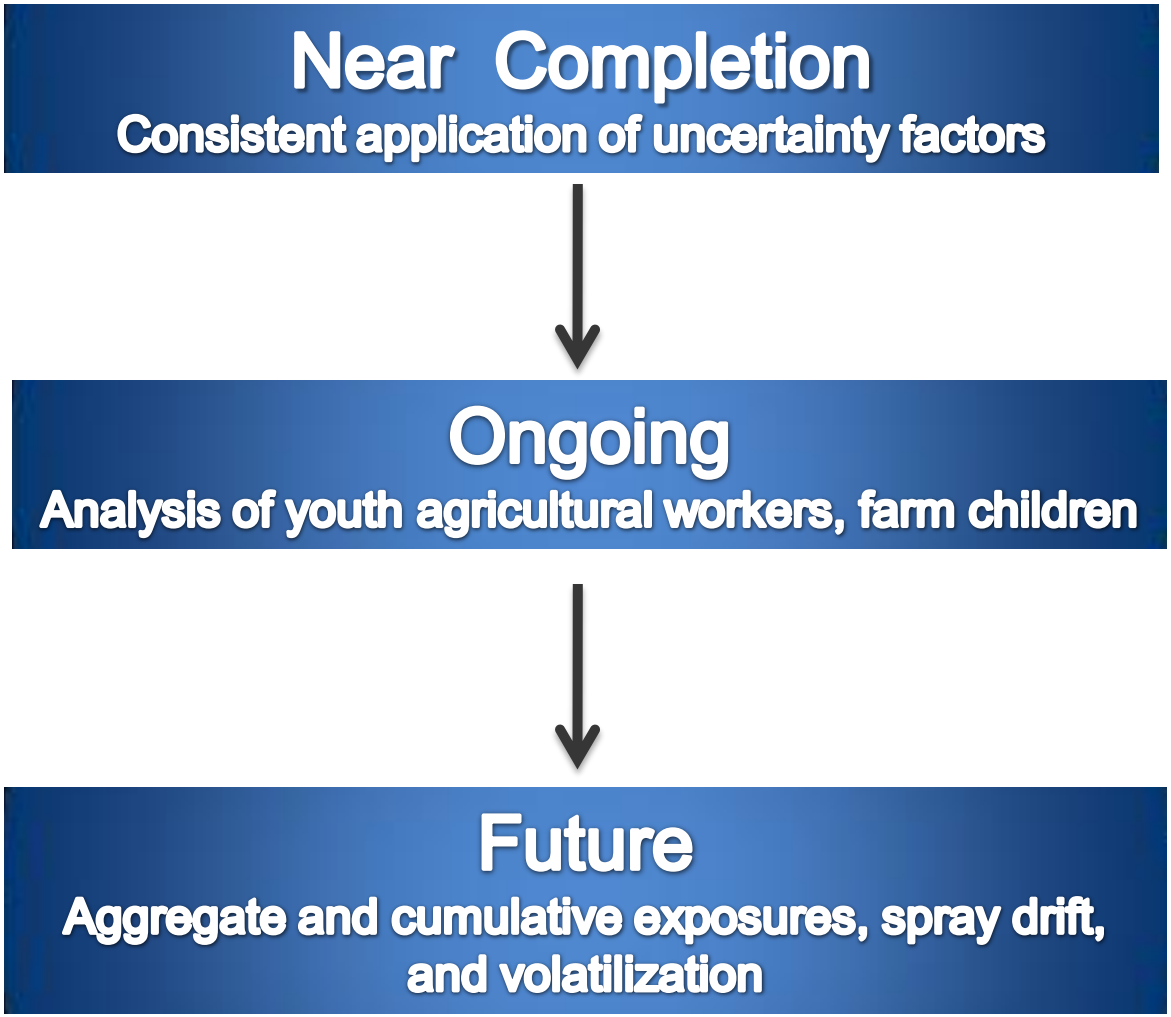
Goals

- Strengthen and improve the consistency in the risk assessment process for all pesticide exposures
  - Consistently apply risk assessment techniques developed in FQPA 1996 implementation
- Address environmental justice concerns and improve children's health protections for pesticides
  - Farm workers, farm children, rural communities

Policy Elements

- Uncertainty Factor (UF)
- Youth Workers
- Children in Agricultural Fields
- Aggregate Exposure
- Cumulative Exposure
- Spray Drift Modeling
- Volatilization Data and Modeling

Current Status



Public Comments

- 25 Comments
- General Themes:
  - UF application
  - Science issues (aggregate, cumulative, etc)
  - Farm children (concerns about exposure, etc)
  - Legal issues (improve enforcement, maintain FIFRA, etc)
- Response to comments in review
- Additional opportunities for input on individual elements

Application of Uncertainty Factors

- Consistent application of UFs in occupational assessments related to ag uses to protect:
  - Children working in agriculture
  - Pregnant/nursing female workers
- Consistent application of UFs in occupational assessments related to uses in non-ag/residential settings to protect:
  - Pregnant/nursing women working in non-ag/residential settings

Application of Uncertainty Factors

- **Not** a Default 10X to All Worker/Non-food Use Assessments
- Workers/Non-food Use Assessments **Still** Regulated Under FIFRA (Risk/Benefit)
- **Status**
  - Proposed policy undergoing OPP Senior Management review
  - Concurrently developing implementation guidance for OPP staff

Youth Workers

- Policy Goal
  - Address environmental justice concerns and improve children's health protections for pesticides
- Allowable Ages
  - Children ages 12-17 are legally allowed to work in production agriculture (with some exceptions for 10 and 11 year olds)
  - Children of any age can work on family farms
- Expands previous analyses
  - Includes more data
  - More rigorous statistical analysis
- Purpose is to determine if risk assessment methods are protective

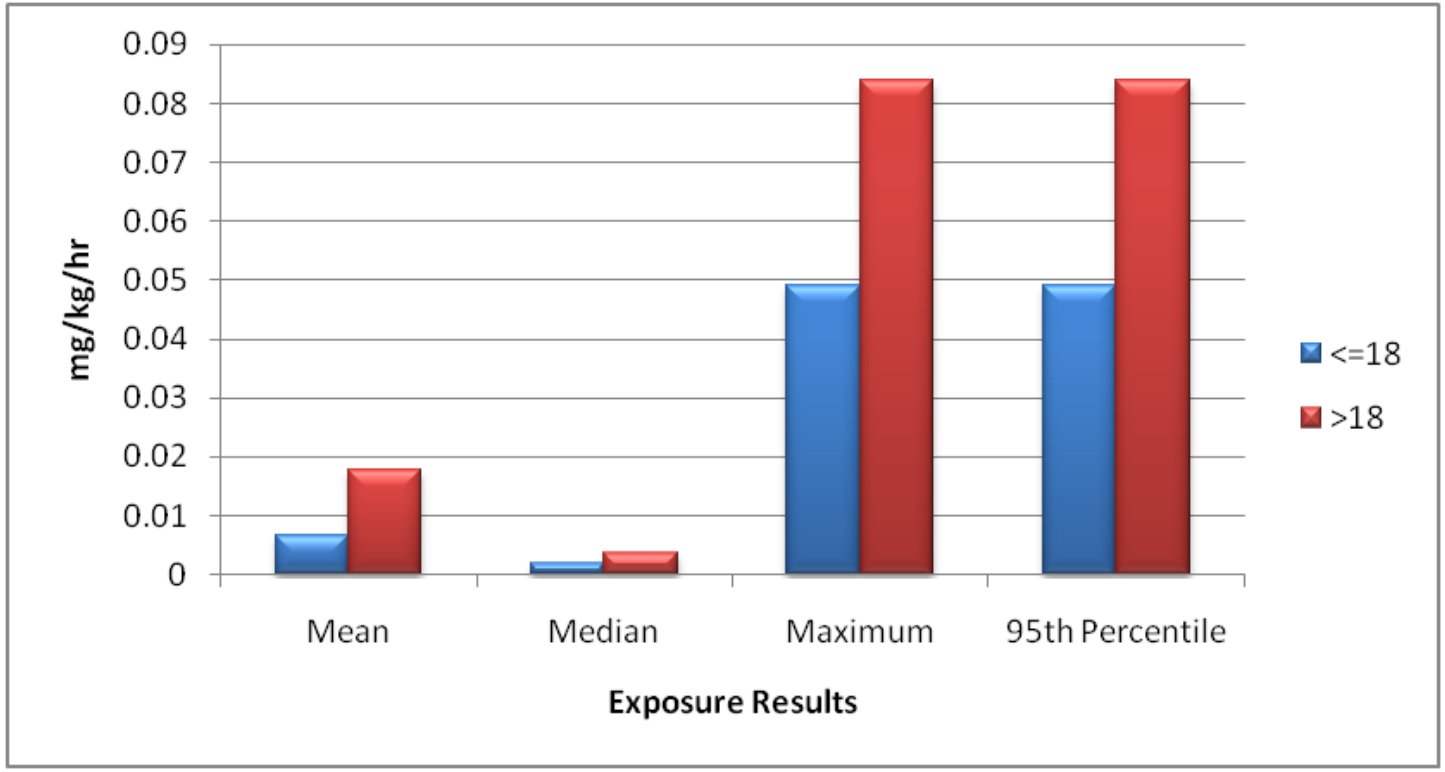
Youth Workers

- US EPA/Department of Labor “Pesticide Hazard Assessment Project (1980-1986)”
  - Collaborative effort with seven universities across U.S.
  - 22 studies conducted over multiple seasons with more than 1,000 days of exposure measured (17 crops, harvesting,11 states, 36 pesticides)
  - Children as young as 6 years old
  - All studies reviewed for ethics considerations
- Additional exposure studies in literature will also be considered

Youth Worker - Example

Tobacco harvest/acephate

- Preliminary analysis indicates youth had significantly lower exposure rates than adults working under same field conditions



Youth Worker – Additional Considerations

- Generally, youth exposure does not appear greater than adult exposure based on additional, preliminary analyses of EPA/DOL studies (~420/1000 worker days)
- Dermal exposure is predominant
  - Productivity
    - Younger children are less productive
    - Lower productivity results in less contact with foliage and lower exposures
  - Physical characteristics associated with different age groups
    - Body surface area & weight ratio

Children in Agricultural Fields

Address Potential Exposures for Children Who:

- Are in/near agricultural fields while their parents work
- Live nearby fields/bystanders
- Have parents who may bring residues home
  - Work clothing, etc
  - Car interiors

Children in Agricultural Fields

- Expands previous analyses
  - Includes more data/literature search
  - Studies being assessed for utility and ethics considerations
  - More rigorous statistical analysis
- Outreach to federal/other partners
- Related activities
  - Worker Protection Standard revisions
  - SAPs on volatilization, residential methods
  - Labeling/other initiatives on spray drift

Aggregate & Cumulative Exposures

- Involve complex science issues
- Impacted by other aspects of policy (spray drift, volatilization, UF, etc.)
- Ongoing identification of additional data (usage data, co-occurrence, etc.)

Next Steps

- Finalize Response to Comments Document
- Finalize UF Policy
- Address Complex Science Issues
- Continue Ongoing Data Analyses
- Future Updates on Progress