

US EPA ARCHIVE DOCUMENT

# **C-FERST**

## **EPA's Community-Focused Exposure and Risk Screening Tool**

***Overview & Status***

**March 2012**



# What is C-FERST?

It is a “one-stop-shop” community mapping and assessment tool to inform environmental public health decisions.

## What does C-FERST do?

- Enhances access to science for community decision-making with
  - Location-specific environmental data
  - Estimated environmental exposures and risks
  - Maps, fact sheets, guidance, best practices
  - Community reports for issues of concern
- Provides a venue for technical assistance, science communication, and collaborations
- Assists with identification and prioritization of community environmental health issues
- Helps build sustainable and healthy communities



# What Questions Can C-FERST Answer?

- What step-by-step guidance can I use to conduct a community environmental health assessment?
- How can I learn about community environmental issues and available tools for local data monitoring and mapping?
- How do I identify and prioritize environmental issues in my community for decision-making?
- What are the environmental conditions in my community? How will community decisions affect environmental health?
- What have other communities done to address specific issues of concern? What best practices for reducing risks are available?
- What are the impacts of specific decisions and actions my community has taken/could take for sustainable solutions?



# Who are the intended C-FERST users?

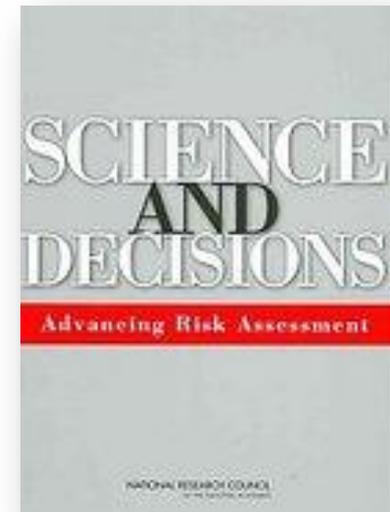
- Experienced risk assessors, or EPA community project leads with a technical background.
- The public or community groups with involvement of an EPA regional lead or other practitioner experienced in assessing community health issues.
- Future versions of the tool could include enhancements for community members or individuals with less technical experience.



# Needs & External Drivers

- **NRC Science & Decisions: Advancing Risk Assessment (2009)**

*“EPA should focus on development of guidelines and methods for **simplified analytic tools** that could allow **screening-level cumulative risk assessment** and could provide tools **for communities** and other stakeholders to use in conducting assessments.”*  
(pp. 10, 236)



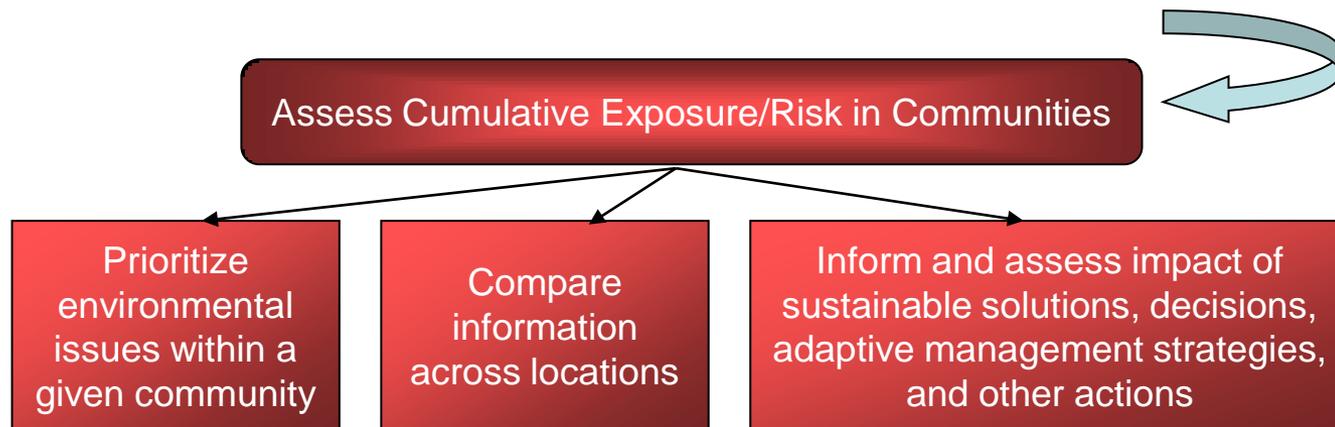
- **NAPA, NEJAC, NRC Reports**
- **EPA Administrator Priorities**
- **EPA/ORD Sustainable and Healthy Communities Research Program**

# Conceptual Framework



- ✓ modeled local exposures
- ✓ guidance on local measurements
- ✓ cumulative risk science
- ✓ other info useful to communities

- Follow community guidance; access info
- Map multimedia human exposures and risks
- Learn best practices in other communities
- Generate community reports for risk ranking





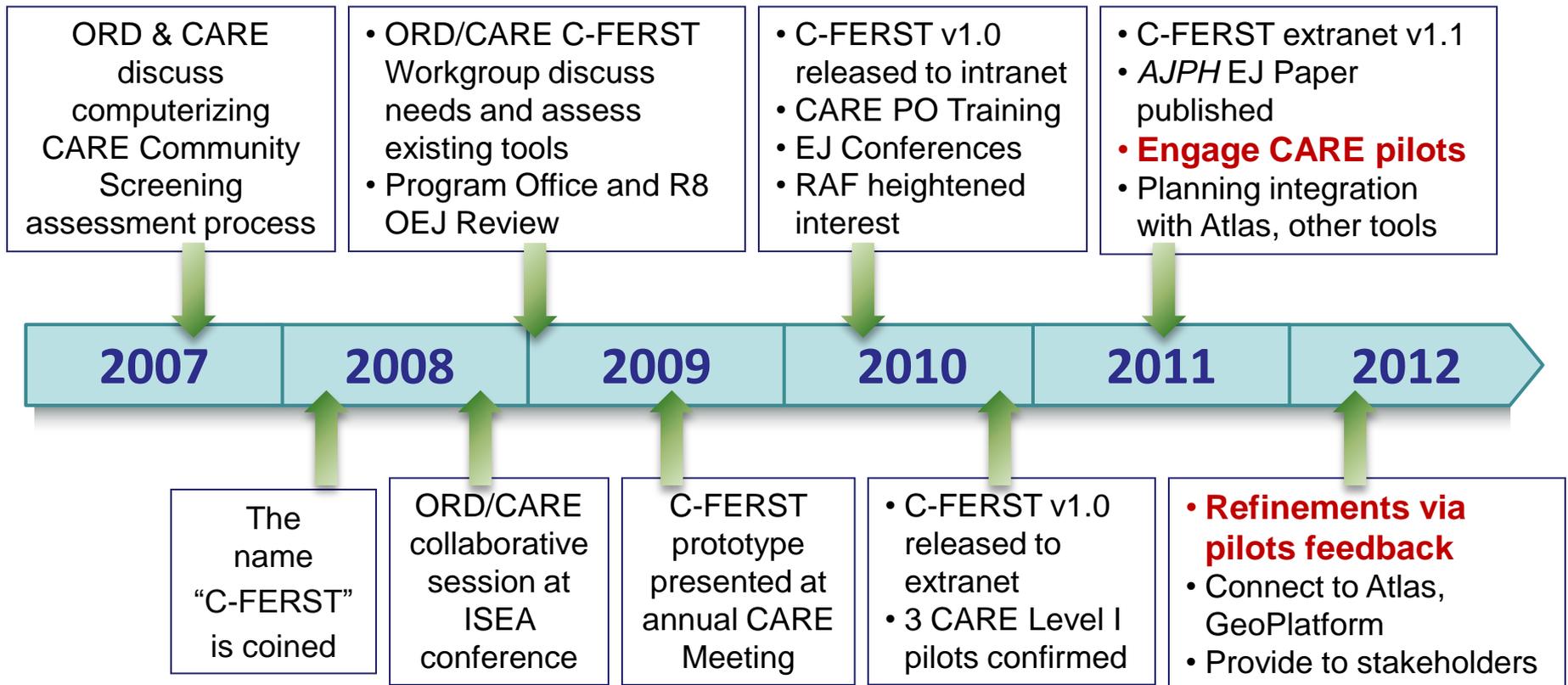
# C-FERST Stakeholders

- **EPA Groups, e.g.**
  - EPA Community Programs
  - Regional project officers
  - Regional risk assessors (e.g., Compliance & Enforcement; EJ)
  - EPA Program Office risk assessors/managers
  - Office of Environmental Justice
- **State & Local Agencies**
- **Communities & Individuals**
- **Other Federal Agencies**
  - CDC, HUD, USGS, others
- **Academic partners**





# Development Timeline



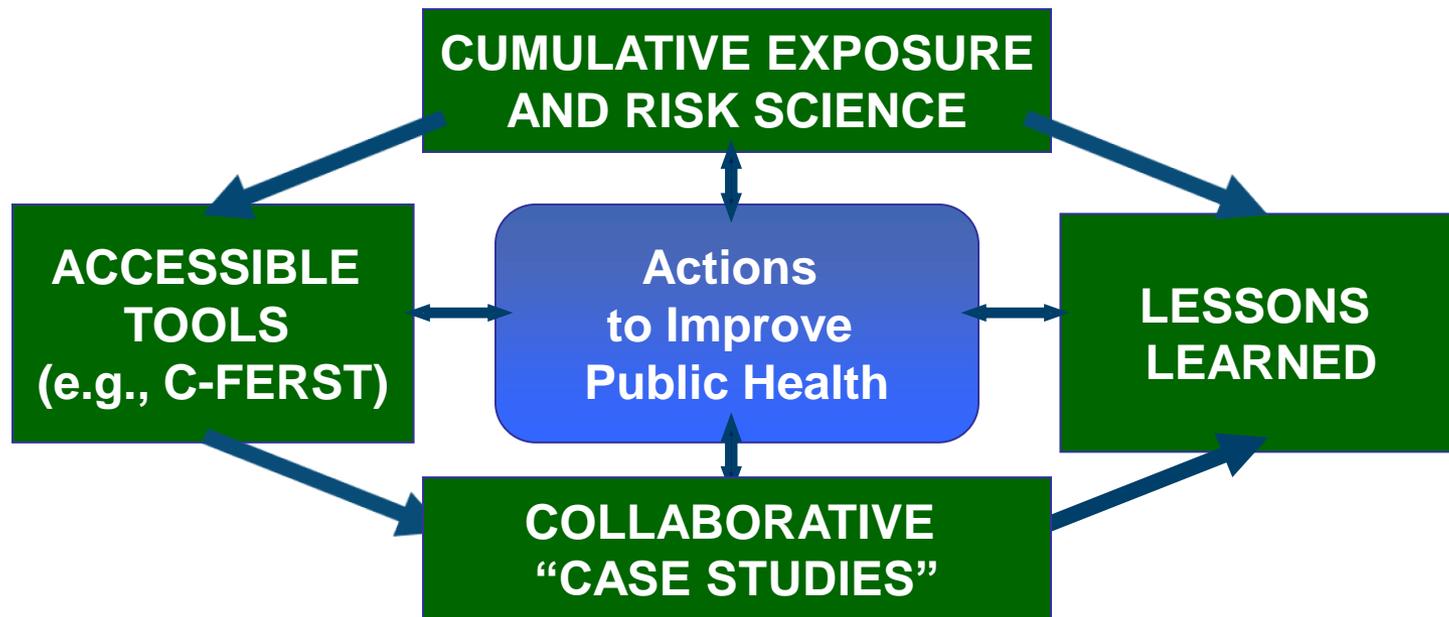


# Current Status of C-FERST

- Nominated for [White House Open Government initiative](#)
- Key tool within [EPA's Sustainable and Healthy Communities Research Program](#)
- C-FERST beta test version available  
(see [www.epa.gov/head/c-ferst](http://www.epa.gov/head/c-ferst) for access)
- Recently published [AJPH paper on C-FERST and EJ](#)
- Ongoing [community-level exposure/risk research](#) to populate C-FERST
- Initial [EPA CARE Program](#) pilots underway, with growing interest from communities in multiple regions



# C-FERST in the Context of ORD Science & Tools for Public Health





# Pilot Community Case Studies

- **Assessed Other Tools to Inform C-FERST**
  - Detroit, MI and Holyoke, MA
  - Milwaukee EJ communities
  - several publications
- **2010-12 C-FERST/CARE Community Case Studies**
  - Portland, ME
  - Springfield, MA
- **Potential Future Collaborations**
  - Minneapolis, MN – CARE
  - Durham, NC – SHCRP
  - NIEHS PEPH volunteers
  - NC Children’s Center – NCER
  - EPA/HUD/DOT Sustainable Communities Partnership cities



# Feedback

## C-FERST Is Useful Now for:

- Visualizing environmental information
- Providing content for outreach materials
- Following step-by-step community guidance interactively
- Learning about community issues of concern

## C-FERST Needs More:

- Enhancement to specific modules
- Risk science & communication
- Decision support functionality

*“C-FERST is an extremely powerful tool, and there are things we can do to make it more so.”*

–Springfield, MA CARE Grantee  
Project Officer

*“I think C-FERST is a very ambitious, comprehensive and powerful tool and has great potential.”*

–Portland, ME CARE Grantee

*“C-FERST can help communities stay on track and identify gaps.”*

–Senior Project Officer, Region 1



# Future Vision for C-FERST

- **Expand cumulative exposure and risk science**
- **Integrate with other tools**
- **Expand sustainability aspects**
- **Broaden use of tool for community applications**



# Acknowledgements

- **C-FERST Development Team**
  - Collaborators in ORD
  - Collaborators in CARE Program (EPA project officers, community grantees), Regions, Program Offices
  - EPA Region 1 GIS and Technical Team
  - National Computing Center
  - Contractors (CSC; Alion; student service contractors)
- **EPA/ORD Management for C-FERST Support**