

model assumptions and capable of assessing prospective exposure to new novel fragrance materials being brought to market.

Keywords: A-aggregate exposure, A-exposure models, C-consumer products, A-risk assessment, A-activity patterns

## **Mo-S-B2: Estimating Recovery Workers' Exposure to Fugitive Chemicals during Cleanup after Hurricane Sandy**

### **Mo-S-B2-01**

#### **CBRA Approach to Inform and Utilize Exposure Assessment for Community Plans for Resilience Building and Protection Options**

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**Abstract:** Exposure assessment science can service community leaders, businesses, and public health officials as they plan for sustainability and resilience in the face of climate change. In the aftermath of Hurricane Sandy, public health efforts have focused on the possible victims of fugitive chemicals and the means by which such risks may be reduced in future scenarios. Collection of information on chemical inventories, source security status, and descriptive evidence on clean-up activities informed modeling of mobility of fugitive chemicals into residential areas and potential exposure/risk of those laboring without protection in the residues of the storm. The research process was monitored and guided by community stakeholders, with an understanding that resilience planning is best achieved locally and at the grassroots. We will discuss the logic of this community led plan along with ideas for utilizing the assessments for community benefit. Also presented will be the challenges and lessons encountered during this community-based data collection process.

Keywords: A-environmental justice, A-climate change, D-community

### **Mo-S-B2-02**

#### **Mapping Flooding and Storm Surge Vulnerability across Sunset Park (Brooklyn, NY) and Documenting Affected Chemical Source Points and Civilian Sector Risks**

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**Abstract:** Vulnerability to coastal storm surges and flooding is greatly influenced by ambient sea levels and storm strength - where climate change projections suggest that hurricanes can begin happening more often, and could take place any time in New York City. Areas endangered under different degrees of flooding and storm surge were modeled yielding maps documenting which chemical source points and civilian sites would be affected by these potential impacts. Considering the security status of chemical sources and the potential vulnerabilities for industrial and civilian sites, the study derived six groups of chemical sources, and multiple sites per chemical. Building on previous research developed by the New York City Environmental Justice Alliance's (NYC-EJA) Waterfront Justice Project, this presentation will describe the methodology designed by the partnership Grassroots Research to Action in Sunset Park (GRASP) along with the maps and diagrams that have resulted from this study. In addition, this presentation will discuss the challenges and lessons learned from the implementation of Geographic Information Systems (GIS) along with community-based participatory research methodologies, the use of "traditional" and "non-traditional" data sources, in an inter-disciplinary collaboration between community organizers, urban planners and public health experts.

Keywords: A-climate change, A-environmental justice, A-geospatial analysis/GIS, Community vulnerability, A-chemical prioritization



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