



*Communities in Action*

NATIONAL ASTHMA FORUM

WASHINGTON, DC JUNE 17-18, 2010

# **Clinical-Settings Break In Wilson/Roosevelt Room**



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## **Boston Medical Center**

Delivering Clinic-Based Tailored  
Environmental Interventions

Dr. Megan Sandel

# Boston Medical Center

- **Private, not-for-profit academic medical center and safety-net hospital for Boston**
- **Population Served:** Nearly 1 million patient visits per year; about 70% from underserved populations
- **Key Partners:** Boston Public Health Commission, Boston Urban Asthma Coalition, Committee for Boston Public Housing, Boston Housing Authority, Inspectional Services, and Department of Public Health

# Environmental Interventions in Clinic Settings

- BMC delivers environmental interventions in clinic settings by:
  - Training clinical staff to conduct environmental exposure assessment in clinical settings
  - EHR prompts for exposure assessments
  - Delivery of asthma action plans
  - Clinical counseling on trigger mitigation and avoidance
  - Referral to home-based intervention inspections
  - Recent addition of Community Health Workers

# Environmental Interventions in Clinic Settings

- Home-based environmental management is coordinated with clinical care through:
  - Close communication among medical home, public health and housing agencies to address structural environmental factors
  - Internet-based referral and home-visit tracking system that creates feedback loop for clinicians
  - Partnerships with BPHC, Boston Urban Asthma Coalition, BHA, and Neighborhood Health Plan
  - New pilot study having Community Health Workers in partnership with Dept of Public Health

# Environmental Interventions in Clinic Settings

<b>Activities</b>	<b>Outputs</b>	<b>Outcomes</b>	<b>Impact</b>
<ul style="list-style-type: none"><li>• Train clinical teams to assess exposures to environmental triggers</li></ul>	<ul style="list-style-type: none"><li>• Percent of patients with trigger exposures documented in EHR</li><li>• Referrals for high risk patients for home visits and social support</li></ul>	<ul style="list-style-type: none"><li>• Reduced exposure to environmental triggers that exacerbate asthma</li></ul>	<ul style="list-style-type: none"><li>• Reduced ED visits and hospitalizations for asthma</li><li>• Improved patient QOL</li></ul>

# Evaluation of Clinic-Based Environmental Interventions for Asthma: Practical Aspects

**CAPT David Callahan, MD**  
**National Center for Environmental Health**  
**Centers for Disease Control and Prevention**



*The findings and conclusions in this report are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.*



# Objectives

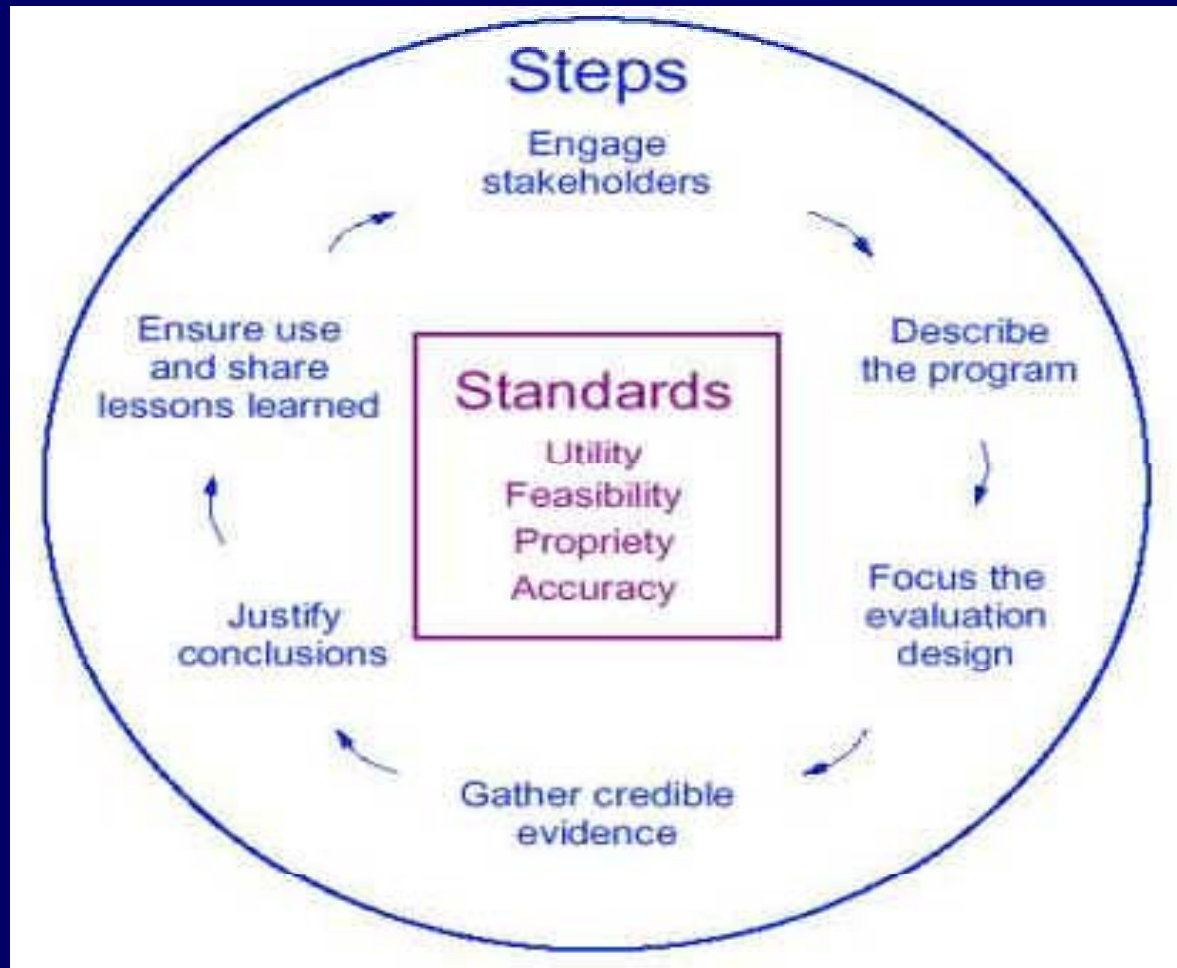
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**Participants will be able to:**

- **List the six steps of the CDC Framework for Evaluation**
- **Explain an excerpt from a sample logic model for clinic-based environmental interventions**
- **Consider possible output and impact measures, and sources of credible data for those measures**



# CDC Evaluation Framework



<http://www.cdc.gov/eval/framework.htm>

# Six Steps for Program Evaluation

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## Engage stakeholders

*Those involved, those affected, primary intended users*

## Describe the program

*Need, expected effects, activities, resources, stage, context, logic model*

## Focus the evaluation design

*Purpose, users, uses, questions, methods, agreements*

# Six Steps for Program Evaluation

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## **Gather credible evidence**

*Indicators, sources, quality, quantity, logistics*

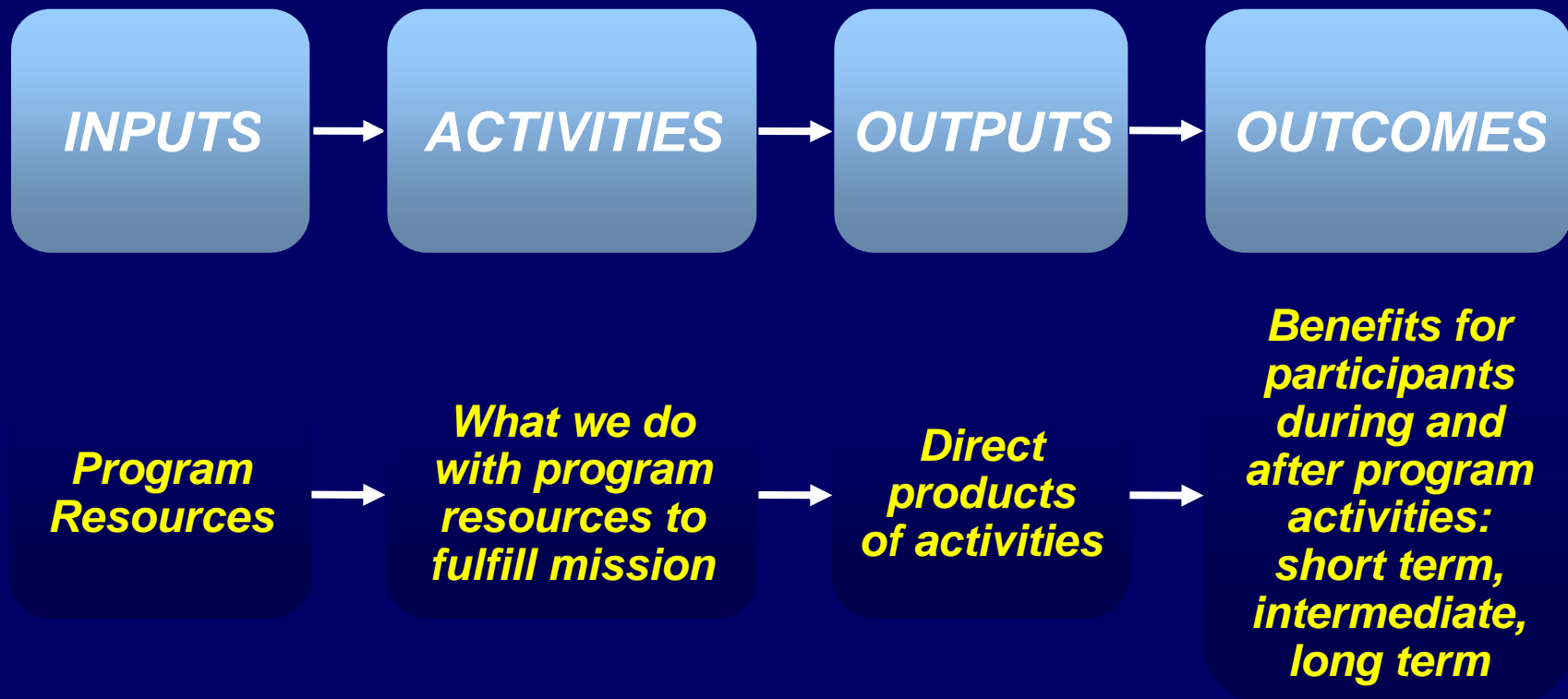
## **Justify conclusions**

*Standards, analysis/synthesis, interpretation, judgment, recommendations*

## **Ensure use and share lessons learned**

*Design, preparation, feedback, follow-up, dissemination*

# Generic Program Logic Model



*Source: Rebecca Murphy-Hoefer, PhD, MPH*

# Environmental Interventions in Clinical Settings

## *Activities    Outputs    Outcomes    Impact*

*Train clinical teams to assess exposures to environmental triggers*

*Percent of patients with trigger exposures documented in EHR*  
*• Referrals for high risk patients for home visits and social support*

*Reduced exposure to environmental triggers that exacerbate asthma*

*Reduced ED visits and hospitalizations for asthma*  
*• Improved patient QOL*  
*Environmental*

# **Environmental Interventions in Clinical Settings**

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- Training clinical staff to conduct environmental exposure assessment in clinical settings*
- EHR prompts for exposure assessments*
- Delivery of asthma action plans*
- Clinical counseling on trigger mitigation and avoidance*
- Referral to home-based intervention inspections*
- Recent addition of Community Health Workers*

# Possible Measures and Sources of Data

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## Of Outputs:

EHR prompts (Y/N)

Asthma Action Plans in EHR for all ICD-9 493

Documentation (notes) of clinical counseling  
on triggers

## Of Impacts:

Same-patient reduction in ER visits over time  
from admin/billing/claims data

Total ER visits (billing, EHR, etc.)

ATAQ scores from EHR, simple paper tracking