



WTC-HEART

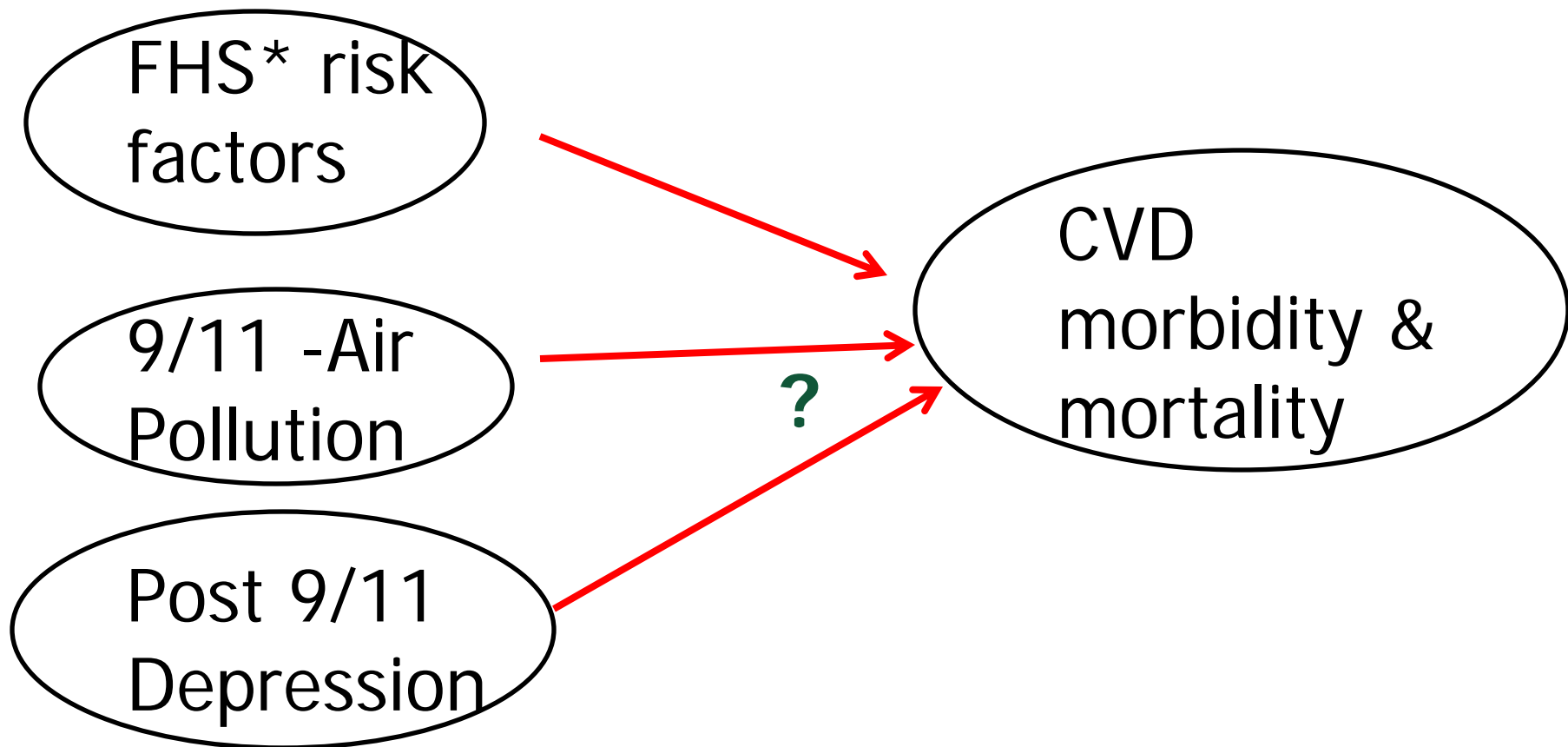


**Cardiovascular health impact
and prediction of incident
(primary and subsequent)
cardiovascular events among
WTC responders**

CBNS, Queens College



Cohort Study: 2011-2014



*Smoking, cholesterol, blood pressure, Diabetes, tx



Evidence & Significance

- Air pollution is an important risk factor for CV morbidity and mortality.
- PTSD is an important risk factor for CV morbidity and mortality.
- Do they modify the CV morbidity and mortality risk over and beyond the FHS score?



Objective 1

- Does FHS risk score accurately estimate the WTC cohort's CHD risk for primary and subsequent cardiac events?



Objective 2

- Is there a need for a specific “WTC score” for CHD risk among WTC responders to guide cardiovascular prevention?



Objective 3

- Are WTC responders at higher CVD risk than other New York residents who were not directly exposed to the air pollution and mental stress at Ground Zero?



Specific aims 1

- Recruit 6,000 out of 7,500 WTCHP participants who are expected to undergo their annual monitoring exam over 12 months at the Mount Sinai and the North Shore-LIJ/Queens College sites of the WTC Health Program.



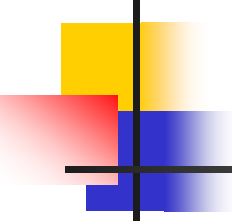
Specific aims 2

- Assessment of:
 - CVD risk factors (blood pressure, height, weight, and blood lipids, CVD & Diabetes history, smoking)
 - PCL score for PTSD
 - WTC dust exposure,
- Integrated in the usual clinical assessment at the WTCMMP.



Specific aims 3

- Two-year follow-up
- Annual contact to monitor cardio- and neurological symptoms, hospitalizations; determine changes in functional status, quality of life, cognitive status, stroke risk factors and behaviors
- Medical records and SPARCS



Power Analysis

- 4,200 men
- Follow-up = 2 yrs
- Primary event (FHS) over 2 years: 4-10%=> 150 to 357 events
- Secondary event rate (FHS): 14-22%/yr => 88 to 139 events
- In women, FHS predicts 25 to 50 event overall



Investigator Team

- CBNS/QC, CUNY:
 - S Markowitz, A Morabia
- Mount Sinai Hospital:
 - M Crane, L. Crawley, MA MacLaughlin
- Mailman SPH, Columbia:
 - M Desvarieux

