



MAIA

Associating particulate air pollution
with human health



Introduction to the
MAIA Early
Adopters program

HAQAST6

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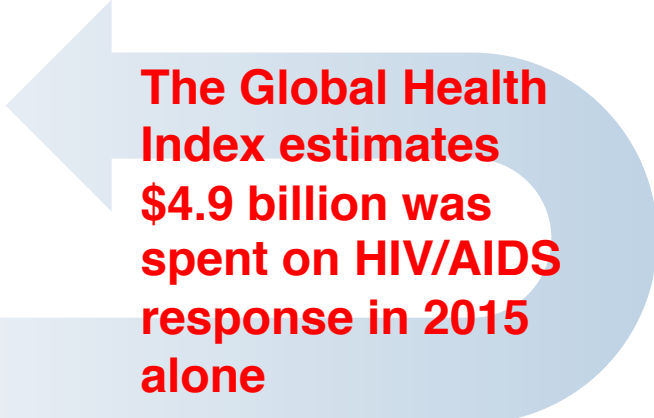


Jet Propulsion Laboratory
California Institute of Technology

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1. All heart disease deaths (17.7 million)
2. All cancer deaths (8.93 million)
3. Air pollution (4.06 million)
4. Violent deaths (1.36 million)
5. Road accidents (1.34 million)
6. HIV/AIDS (1.03 million)
7. Drowning (303,000)
8. Fires (132,000)
9. All natural disasters (7,060)
10. Shark attacks (~10)



The Global Health Index estimates \$4.9 billion was spent on HIV/AIDS response in 2015 alone

Applications Objectives	Science/Applications Questions	End-users/agencies	Early Adopter benefits
O1: The primary objective of the MAIA applications effort is to engage the epidemiological, environmental health and research, and air quality communities of potential to maximize the usability and utility of MAIA science data products.	Q1: For which PM types are short-term, maternal, and chronic exposure linked to various health outcomes? Q2: What associations exist between various PM types and effects on the health of humans, other living organisms, and the Earth environment as a whole? Q3: How can satellite-derived data concerning the spatial and temporal distribution of various types of PM be incorporated into the decision-making processes for regulating and monitoring PM? Q4: How can satellite-derived data concerning the spatial and temporal distribution of various types of PM be used to improve our current understanding of aerosol science and improve aerosol models, including air quality forecasting?	• Epidemiologists • Environmental health researchers • Aerosol researchers • Air quality managers • Governmental health agencies • Government air quality managers • Health professionals • Commercial organizations • Nonprofits • Individuals	• Perform health studies in the STAs • Perform additional health studies in the PTAs • Collaborate with the science team epidemiologists • Contribute to the selection of the STAs • Inform the MAIA project about what actions could make the MAIA data products useful to these user communities • Introduce MAIA data to colleagues
O2: To the extent possible, the MAIA applications effort will also help facilitate the use of MAIA data among governmental and non-governmental entities to support decision-making, protection of public health, and education.			

The NASA Applied Science Program provides funding for a MAIA Applications Program to partner with the MAIA project on achieving our applications objectives

Applications Plan and Traceability Matrix

- ✓ Establish MAIA and ASP agreement on applications activities
- ✓ Logical decomposition of how tasks will be undertaken

Community Contacts List

- ✓ MAIA has a large community of collaborators/potential users
- ✓ Organizes contacts for quick reference by the MAIA team

Early Adopters Program

- ✓ Expand the user base of MAIA data products
- ✓ Entrain users pre-launch to prepare to use data products

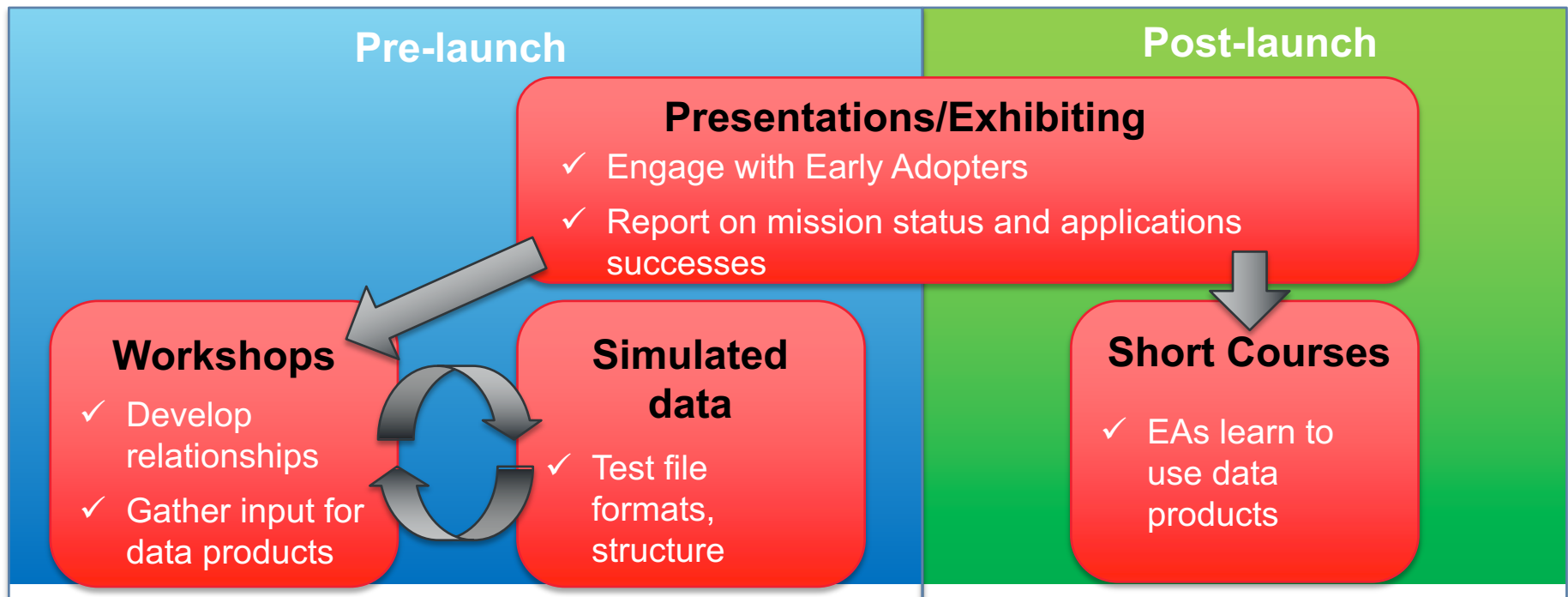
Who is an Early Adopter?

- ✓ You! (We hope)
- ✓ Someone interested in using MAIA data
- ✓ Have a particular use in mind (eventually)

Why be an Early Adopter?

- ✓ Chance to offer feedback pre-launch
- ✓ Get access to test data products
- ✓ Collaborate with the science team and receive any needed assistance to entrain data products

MAIA's EA program is targeted toward increasing MAIA data product use by the epidemiological, air quality, and environmental communities



3 years before launch, we have over 100 potential Early Adopters

Potential EAs by area of interest



- Primary Target Areas
- Secondary Target Areas
- Calibration/Validation Targets

Potential EAs by affiliation



- JPL/NASA
- US Gov't
- Non Fed Gov't
- Academia
- Commercial
- Nonprofit
- International Gov't



Primary Target Areas

- USA-LosAngeles
- USA-Atlanta
- USA-Boston
- ESP-Barcelona
- ITA-Rome
- ZAF-Johannesburg
- ISR-TelAviv
- ETH-AddisAbaba
- IND-Delhi
- CHN-Beijing
- TWN-Taipei

Secondary Target Areas

- USA-Hilo
- PAC-OceanStCu
- USA-SanFrancisco
- USA-Phoenix
- USA-Denver
- MEX-MexicoCity
- CAN-Toronto
- PER-Lima
- CHL-Santiago
- BRA-SãoPaulo
- SEN-Dakar
- ATL-OceanStCu
- NGA-Lagos
- ZAF-CapeTown
- SRB-Belgrade
- KWT-KuwaitCity
- IND-Chennai
- BGD-Dhaka
- VNM-Hanoi
- MNG-Ulaanbaatar
- KOR-Seoul
- AUS-Sydney

Calibration/Validation Target Areas

- USA-RailroadValley
- LBY-Libya4
- NAM-Gobabeb

Local Collaborators

- SCAQMD
- CARB
- UCLA
- UC Davis

Planned health studies

- Short-term mortality
- Birth outcomes

